



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 9, 2026 – 06:05 AM UTC

PDB ID : 4V7V / pdb_00004v7v
Title : Crystal structure of the E. coli ribosome bound to clindamycin.
Authors : Dunkle, J.A.; Xiong, L.; Mankin, A.S.; Cate, J.H.D.
Deposited on : 2010-08-16
Resolution : 3.29 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

The following versions of software and data (see [references ⓘ](#)) were used in the production of this report:

MolProbity : 4-5-2 with Phenix2.0
Mogul : 2022.3.0, CSD as543be (2022)
Xtriage (Phenix) : 2.0
EDS : 3.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4 : 9.0.010 (Gargrove)
Density-Fitness : 1.0.12
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

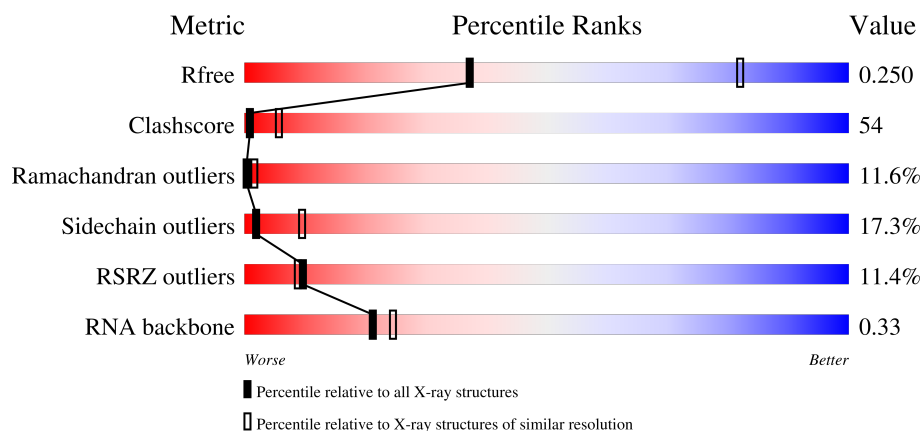
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

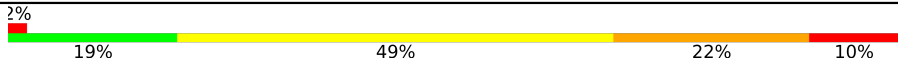
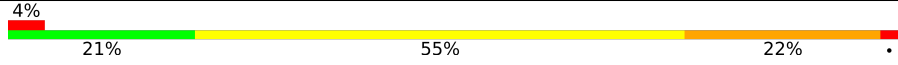
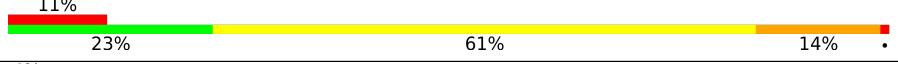
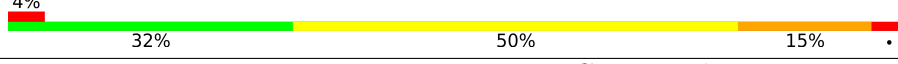
The reported resolution of this entry is 3.29 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1303 (3.30-3.26)
Clashscore	190562	1354 (3.30-3.26)
Ramachandran outliers	187476	1334 (3.30-3.26)
Sidechain outliers	187428	1333 (3.30-3.26)
RSRZ outliers	180081	1303 (3.30-3.26)
RNA backbone	3983	1020 (3.58-2.98)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	AA	1533	
2	AB	218	
2	CB	218	
3	AC	206	

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Mol	Chain	Length	Quality of chain
3	CC	206	
4	AD	205	
4	CD	205	
5	AE	150	
5	CE	150	
6	AF	100	
6	CF	100	
7	AG	151	
8	AH	129	
8	CH	129	
9	AI	127	
9	CI	127	
10	AJ	98	
10	CJ	98	
11	AK	117	
11	CK	117	
12	AL	123	
12	CL	123	
13	AM	114	
14	AN	100	
14	CN	100	
15	AO	88	
15	CO	88	
16	AP	82	
17	AQ	80	

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Mol	Chain	Length	Quality of chain
17	CQ	80	
18	AR	55	
18	CR	55	
19	AS	79	
19	CS	79	
20	AT	85	
20	CT	85	
21	AU	51	
21	CU	51	
22	BA	2903	
22	DA	2903	
23	BB	118	
24	BC	271	
24	DC	271	
25	BD	209	
25	DD	209	
26	BE	201	
26	DE	201	
27	BF	177	
28	BG	176	
28	DG	176	
29	BH	149	
29	DH	149	
30	BI	141	
30	DI	141	

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Mol	Chain	Length	Quality of chain
31	BJ	142	
31	DJ	142	
32	BK	122	
32	DK	122	
33	BL	143	
33	DL	143	
34	BM	136	
34	DM	136	
35	BN	120	
35	DN	120	
36	BO	116	
36	DO	116	
37	BP	114	
37	DP	114	
38	BQ	117	
38	DQ	117	
39	BR	103	
39	DR	103	
40	BS	110	
40	DS	110	
41	BT	93	
41	DT	93	
42	BU	102	
42	DU	102	
43	BV	94	

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Mol	Chain	Length	Quality of chain
43	DV	94	
44	BW	79	
44	DW	79	
45	BX	77	
45	DX	77	
46	BY	63	
46	DY	63	
47	BZ	58	
47	DZ	58	
48	B0	56	
48	D0	56	
49	B1	50	
49	D1	50	
50	B2	46	
50	D2	46	
51	B3	64	
51	D3	64	
52	B4	38	
52	D4	38	
53	CA	1530	
54	CG	150	
55	CM	113	
56	CP	80	
57	DB	117	
58	DF	178	

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
59	MG	DA	3025	-	-	-	X
59	MG	DA	3062	-	-	-	X
59	MG	DA	3073	-	-	-	X
59	MG	DA	3124	-	-	-	X

2 Entry composition

There are 62 unique types of molecules in this entry. The entry contains 284501 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1533	Total	C	N	O	P	0	0	0
			32895	14671	6036	10655	1533			

- Molecule 2 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AB	218	Total	C	N	O	S	0	0	0
			1705	1081	305	312	7			
2	CB	218	Total	C	N	O	S	0	0	0
			1705	1081	305	312	7			

- Molecule 3 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			
3	CC	206	Total	C	N	O	S	0	0	0
			1625	1028	305	289	3			

- Molecule 4 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			
4	CD	205	Total	C	N	O	S	0	0	0
			1643	1026	315	298	4			

- Molecule 5 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	CE	150	Total	C	N	O	S	0	0	0
			1106	687	211	202	6			

- Molecule 6 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			
6	CF	100	Total	C	N	O	S	0	0	0
			818	515	148	149	6			

- Molecule 7 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AG	151	Total	C	N	O	S	0	0	0
			1182	735	227	216	4			

- Molecule 8 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			
8	CH	129	Total	C	N	O	S	0	0	0
			979	616	173	184	6			

- Molecule 9 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			
9	CI	127	Total	C	N	O	S	0	0	0
			1022	634	206	179	3			

- Molecule 10 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			
10	CJ	98	Total	C	N	O	S	0	0	0
			787	493	150	143	1			

- Molecule 11 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			
11	CK	117	Total	C	N	O	S	0	0	0
			877	540	174	160	3			

- Molecule 12 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	AL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			
12	CL	123	Total	C	N	O	S	0	0	0
			955	590	196	165	4			

- Molecule 13 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AM	114	Total	C	N	O	S	0	0	0
			884	546	178	157	3			

- Molecule 14 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AN	96	Total	C	N	O	S	0	0	0
			774	483	160	128	3			
14	CN	95	Total	C	N	O	S	0	0	0
			769	480	159	127	3			

- Molecule 15 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			
15	CO	88	Total	C	N	O	S	0	0	0
			714	439	144	130	1			

- Molecule 16 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AP	82	Total	C	N	O	S	0	0	0
			649	406	128	114	1			

- Molecule 17 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			
17	CQ	80	Total	C	N	O	S	0	0	0
			649	411	121	114	3			

- Molecule 18 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AR	55	Total	C	N	O		0	0	0
			456	288	86	82				
18	CR	55	Total	C	N	O		0	0	0
			456	288	86	82				

- Molecule 19 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			
19	CS	79	Total	C	N	O	S	0	0	0
			638	408	120	108	2			

- Molecule 20 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			
20	CT	85	Total	C	N	O	S	0	0	0
			665	411	137	114	3			

- Molecule 21 is a protein called 30S ribosomal protein S21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	AU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			
21	CU	51	Total	C	N	O	S	0	0	0
			426	265	86	74	1			

- Molecule 22 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	BA	2854	Total	C	N	O	P	0	0	0
			61274	27334	11279	19807	2854			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	DA	2841	Total	C	N	O	P	0	0	0
			60995	27210	11229	19715	2841			

- Molecule 23 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	BB	118	Total	C	N	O	P	0	0	0
			2529	1126	464	821	118			

- Molecule 24 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	BC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			
24	DC	271	Total	C	N	O	S	0	0	0
			2083	1288	423	365	7			

- Molecule 25 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			
25	DD	209	Total	C	N	O	S	0	0	0
			1565	979	288	294	4			

- Molecule 26 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			
26	DE	201	Total	C	N	O	S	0	0	0
			1552	974	283	290	5			

- Molecule 27 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BF	177	Total	C	N	O	S	0	0	0
			1411	899	249	257	6			

- Molecule 28 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			
28	DG	176	Total	C	N	O	S	0	0	0
			1323	832	243	246	2			

- Molecule 29 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			
29	DH	149	Total	C	N	O	S	0	0	0
			1111	699	197	214	1			

- Molecule 30 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			
30	DI	141	Total	C	N	O	S	0	0	0
			1032	651	179	196	6			

- Molecule 31 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			
31	DJ	142	Total	C	N	O	S	0	0	0
			1129	714	212	199	4			

- Molecule 32 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			
32	DK	122	Total	C	N	O	S	0	0	0
			939	587	180	166	6			

- Molecule 33 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	DL	143	Total	C	N	O	S	0	0	0
			1045	649	206	189	1			

- Molecule 34 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			
34	DM	136	Total	C	N	O	S	0	0	0
			1074	686	205	177	6			

- Molecule 35 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			
35	DN	120	Total	C	N	O	S	0	0	0
			961	593	196	167	5			

- Molecule 36 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BO	116	Total	C	N	O	S	0	0	0
			892	552	178	162				
36	DO	116	Total	C	N	O	S	0	0	0
			892	552	178	162				

- Molecule 37 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			
37	DP	114	Total	C	N	O	S	0	0	0
			917	574	179	163	1			

- Molecule 38 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	BQ	117	Total	C	N	O	S	0	0	0
			947	604	192	151				
38	DQ	117	Total	C	N	O	S	0	0	0
			947	604	192	151				

- Molecule 39 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	BR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			
39	DR	103	Total	C	N	O	S	0	0	0
			816	516	153	145	2			

- Molecule 40 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			
40	DS	110	Total	C	N	O	S	0	0	0
			857	532	166	156	3			

- Molecule 41 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			
41	DT	93	Total	C	N	O	S	0	0	0
			739	466	139	132	2			

- Molecule 42 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
42	BU	102	Total	C	N	O	0	0	0
			780	492	146	142			
42	DU	102	Total	C	N	O	0	0	0
			780	492	146	142			

- Molecule 43 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			
43	DV	94	Total	C	N	O	S	0	0	0
			753	479	137	134	3			

- Molecule 44 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	BW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			
44	DW	79	Total	C	N	O	S	0	0	0
			596	367	120	108	1			

- Molecule 45 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			
45	DX	77	Total	C	N	O	S	0	0	0
			625	388	129	106	2			

- Molecule 46 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			
46	DY	63	Total	C	N	O	S	0	0	0
			509	313	99	95	2			

- Molecule 47 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	BZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			
47	DZ	58	Total	C	N	O	S	0	0	0
			449	281	87	79	2			

- Molecule 48 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	B0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			
48	D0	56	Total	C	N	O	S	0	0	0
			444	269	94	80	1			

- Molecule 49 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	B1	50	Total	C	N	O	0	0	0
			410	263	75	72			

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
49	D1	50	Total	C	N	O	0	0	0
			410	263	75	72			

- Molecule 50 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			
50	D2	46	Total	C	N	O	S	0	0	0
			377	228	90	57	2			

- Molecule 51 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			
51	D3	64	Total	C	N	O	S	0	0	0
			504	323	105	74	2			

- Molecule 52 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			
52	D4	38	Total	C	N	O	S	0	0	0
			302	185	65	48	4			

- Molecule 53 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	CA	1530	Total	C	N	O	P	0	0	0
			32831	14642	6024	10635	1530			

- Molecule 54 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	CG	150	Total	C	N	O	S	0	0	0
			1175	730	226	215	4			

- Molecule 55 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	CM	113	Total	C	N	O	S	0	0	0
			877	541	177	156	3			

- Molecule 56 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
56	CP	80	Total	C	N	O	S	0	0	0
			639	400	126	112	1			

- Molecule 57 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
57	DB	117	Total	C	N	O	P	0	0	0
			2507	1116	459	815	117			

- Molecule 58 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
58	DF	178	Total	C	N	O	S	0	0	0
			1420	905	251	258	6			

- Molecule 59 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

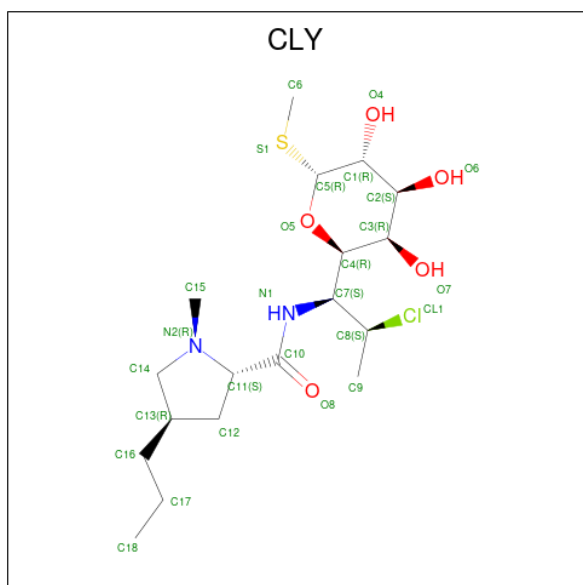
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	AA	42	Total	Mg	0	0
			42	42		
59	AN	1	Total	Mg	0	0
			1	1		
59	BA	134	Total	Mg	0	0
			134	134		
59	BB	4	Total	Mg	0	0
			4	4		
59	BL	1	Total	Mg	0	0
			1	1		
59	CA	42	Total	Mg	0	0
			42	42		
59	DA	132	Total	Mg	0	0
			132	132		
59	DB	1	Total	Mg	0	0
			1	1		
59	DC	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
59	DE	1	Total	Mg	0	0
			1	1		
59	DJ	1	Total	Mg	0	0
			1	1		

- Molecule 60 is CLINDAMYCIN (CCD ID: CLY) (formula: $C_{18}H_{33}ClN_2O_5S$).



Mol	Chain	Residues	Atoms						ZeroOcc	AltConf
60	BA	1	Total	C	Cl	N	O	S	0	0
			27	18	1	2	5	1		

- Molecule 61 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
61	B4	1	Total	Zn	0	0
			1	1		
61	D4	1	Total	Zn	0	0
			1	1		

- Molecule 62 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	AA	197	Total	O	0	0
			197	197		
62	AE	1	Total	O	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
62	AL	1	Total O 1 1	0	0
62	AN	6	Total O 6 6	0	0
62	AT	2	Total O 2 2	0	0
62	AU	1	Total O 1 1	0	0
62	BA	601	Total O 601 601	0	0
62	BB	20	Total O 20 20	0	0
62	BC	8	Total O 8 8	0	0
62	BD	4	Total O 4 4	0	0
62	BE	1	Total O 1 1	0	0
62	BL	3	Total O 3 3	0	0
62	BN	3	Total O 3 3	0	0
62	BQ	1	Total O 1 1	0	0
62	BR	1	Total O 1 1	0	0
62	BT	3	Total O 3 3	0	0
62	B2	2	Total O 2 2	0	0
62	B3	2	Total O 2 2	0	0
62	B4	1	Total O 1 1	0	0
62	CA	193	Total O 193 193	0	0
62	CE	4	Total O 4 4	0	0
62	CI	1	Total O 1 1	0	0
62	CL	1	Total O 1 1	0	0

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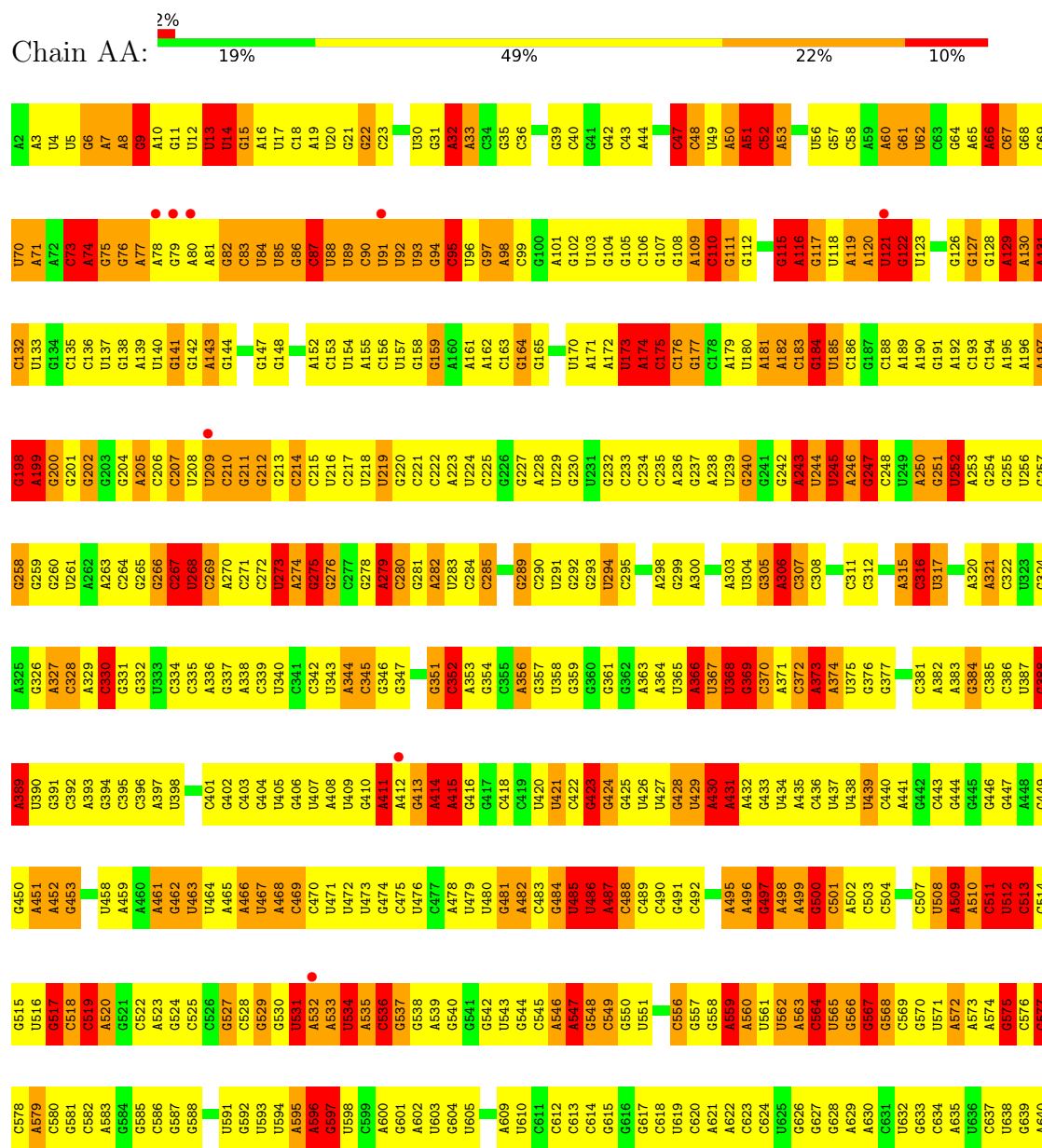
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
62	CN	3	Total 3	O 3	0	0
62	CT	3	Total 3	O 3	0	0
62	CU	2	Total 2	O 2	0	0
62	DA	599	Total 599	O 599	0	0
62	DB	4	Total 4	O 4	0	0
62	DC	9	Total 9	O 9	0	0
62	DD	2	Total 2	O 2	0	0
62	DE	3	Total 3	O 3	0	0
62	DJ	5	Total 5	O 5	0	0
62	DL	5	Total 5	O 5	0	0
62	DN	3	Total 3	O 3	0	0
62	DT	3	Total 3	O 3	0	0
62	DU	2	Total 2	O 2	0	0
62	DV	1	Total 1	O 1	0	0
62	D2	2	Total 2	O 2	0	0
62	D3	1	Total 1	O 1	0	0
62	D4	4	Total 4	O 4	0	0

3 Residue-property plots [i](#)

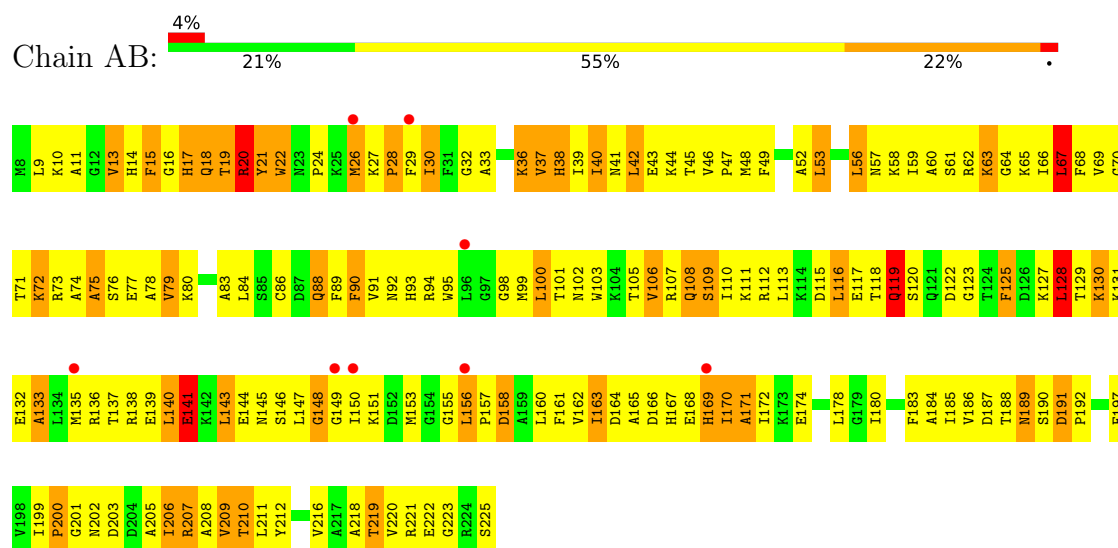
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

• Molecule 1: 16S rRNA

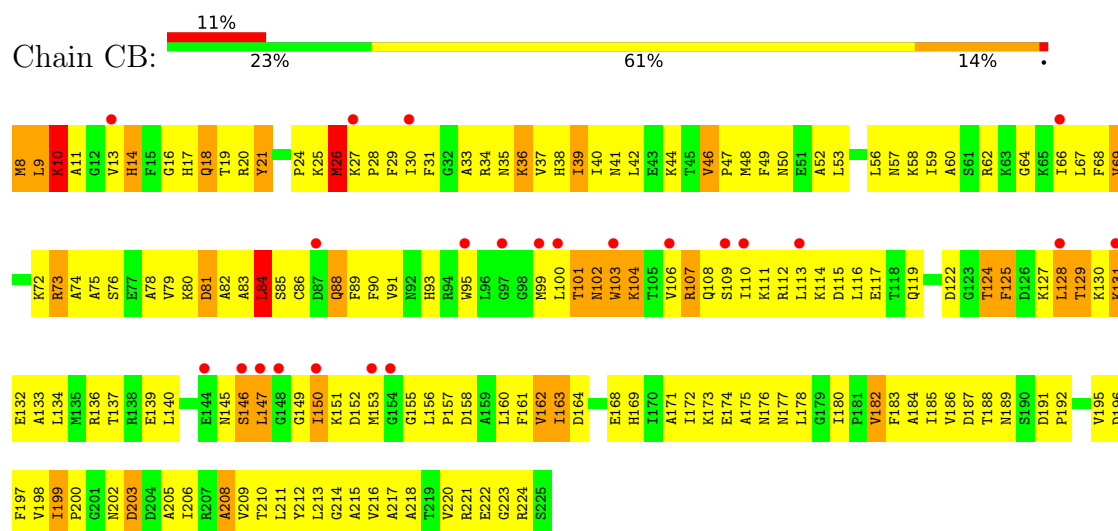




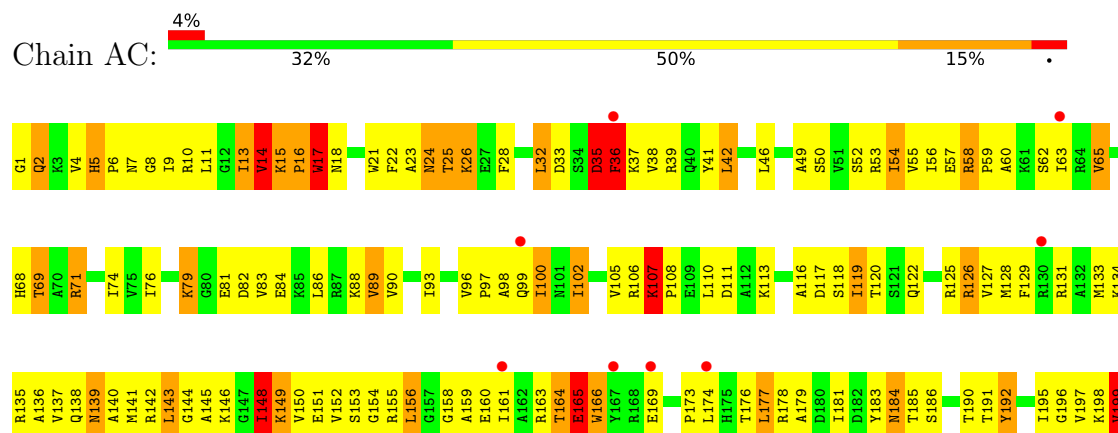
- Molecule 2: 30S ribosomal protein S2



- Molecule 2: 30S ribosomal protein S2

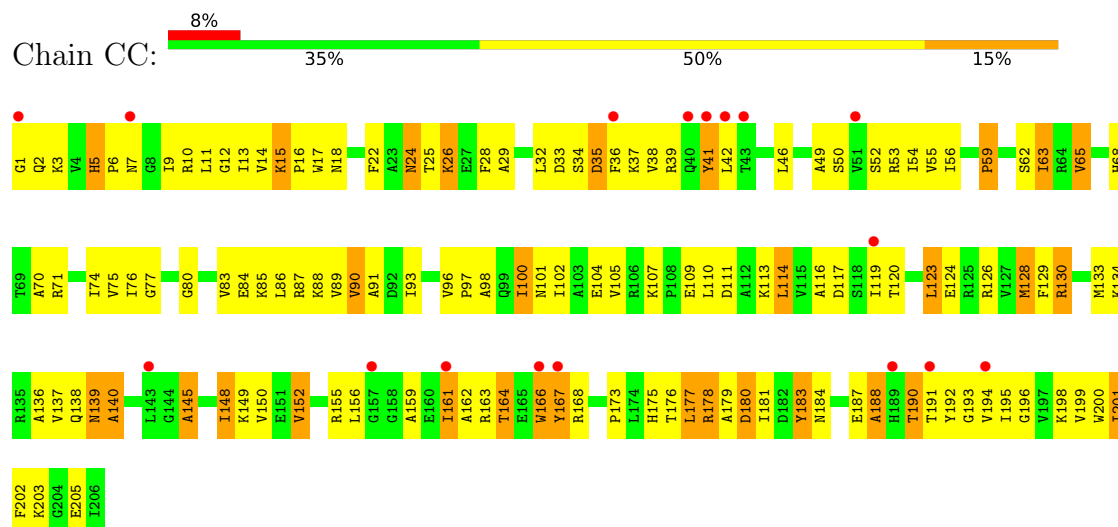


- Molecule 3: 30S ribosomal protein S3

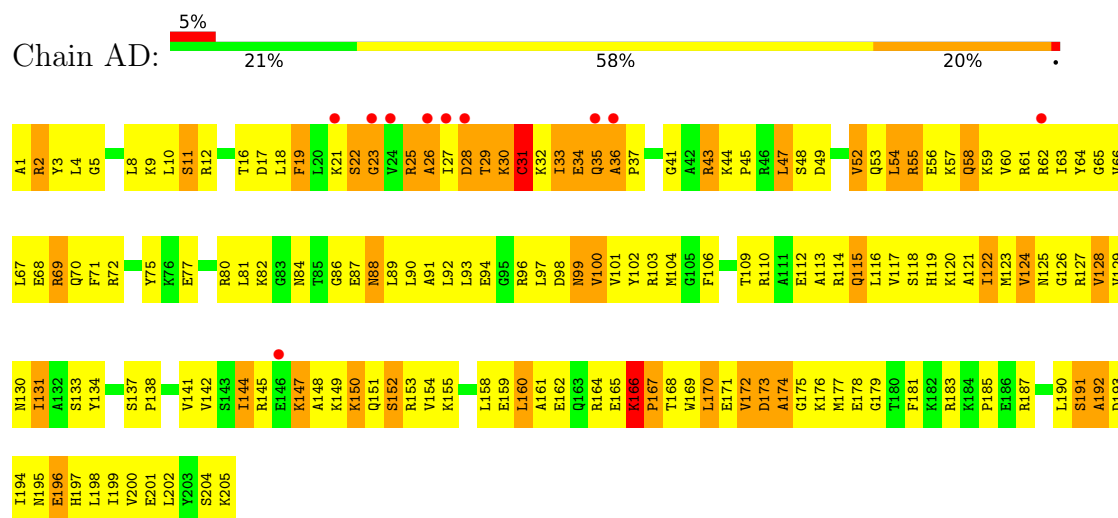




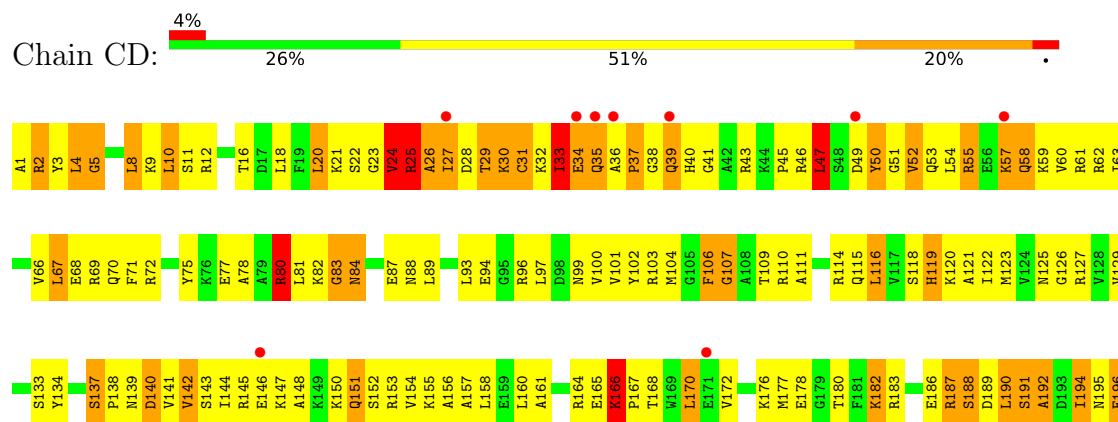
• Molecule 3: 30S ribosomal protein S3

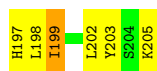


• Molecule 4: 30S ribosomal protein S4

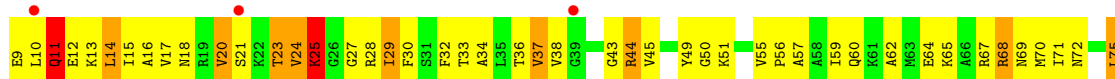


• Molecule 4: 30S ribosomal protein S4





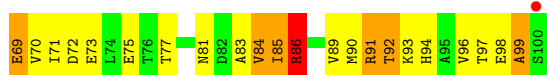
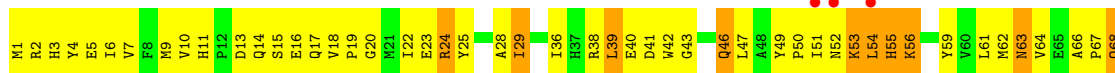
• Molecule 5: 30S ribosomal protein S5



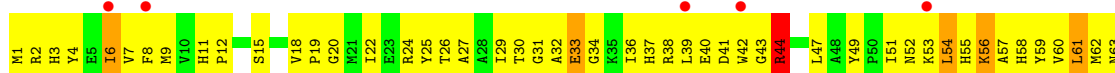
• Molecule 5: 30S ribosomal protein S5



• Molecule 6: 30S ribosomal protein S6

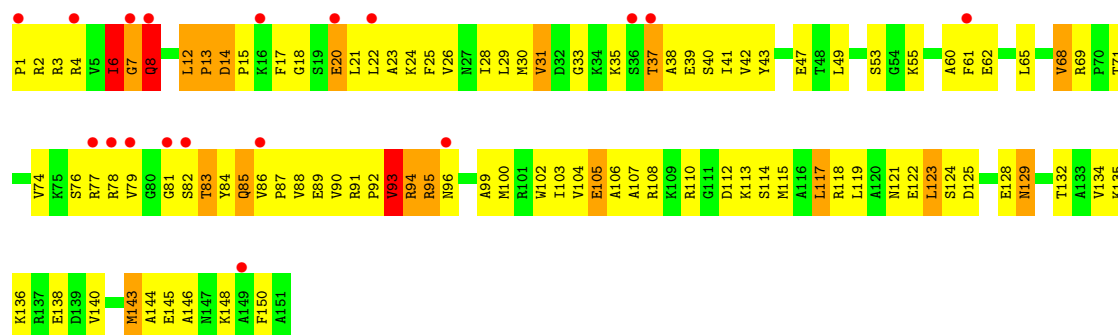


• Molecule 6: 30S ribosomal protein S6

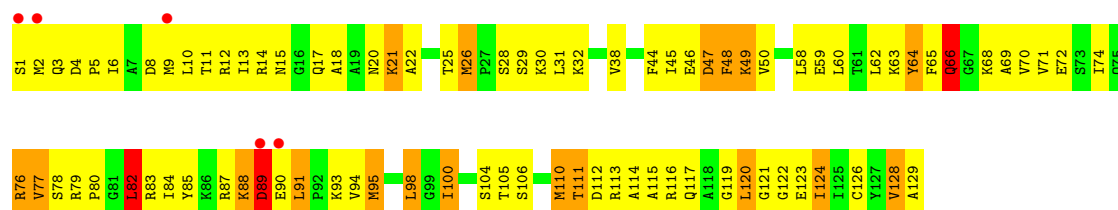




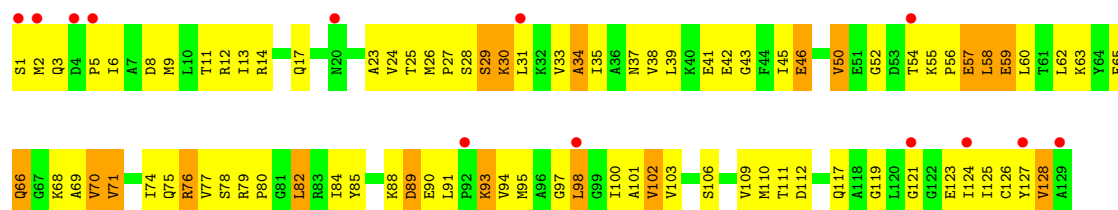
• Molecule 7: 30S ribosomal protein S7



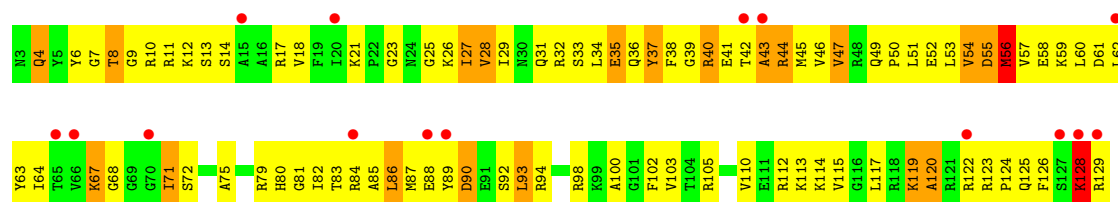
• Molecule 8: 30S ribosomal protein S8



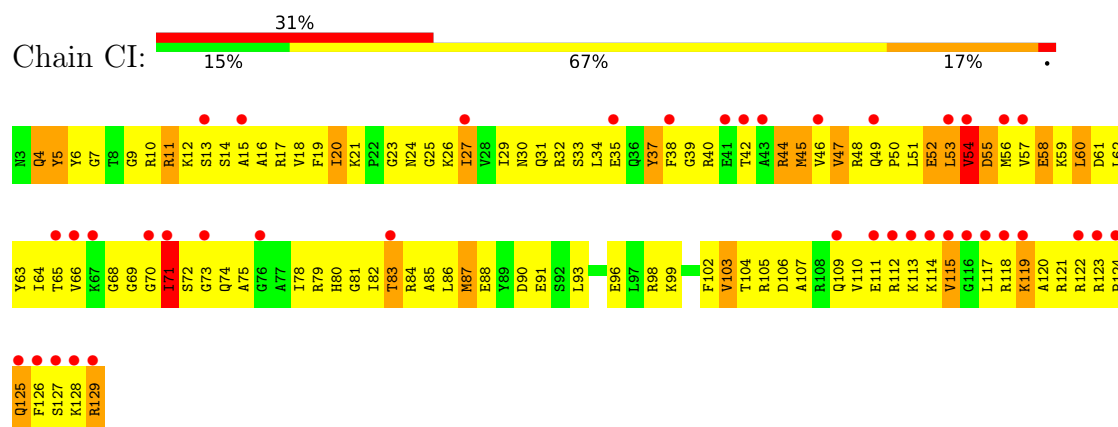
• Molecule 8: 30S ribosomal protein S8



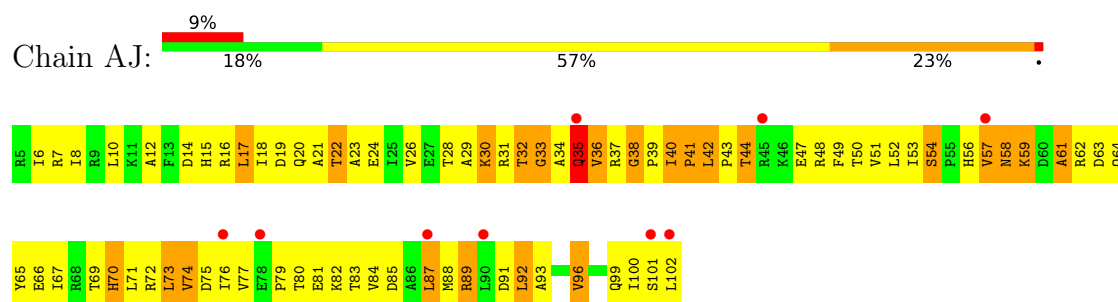
• Molecule 9: 30S ribosomal protein S9



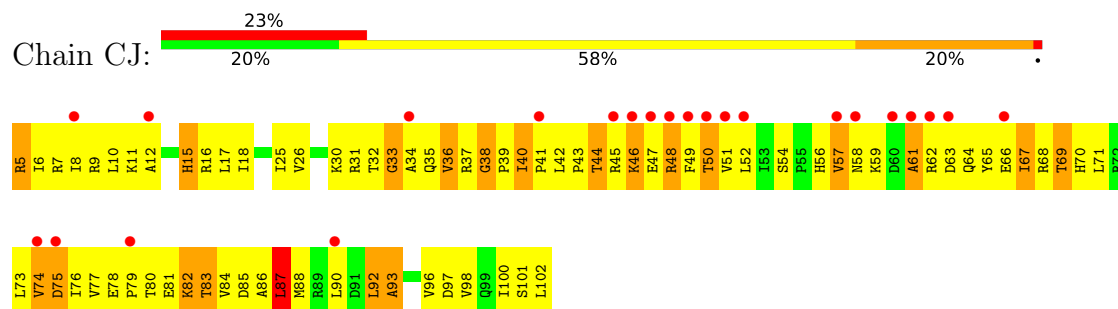
- Molecule 9: 30S ribosomal protein S9



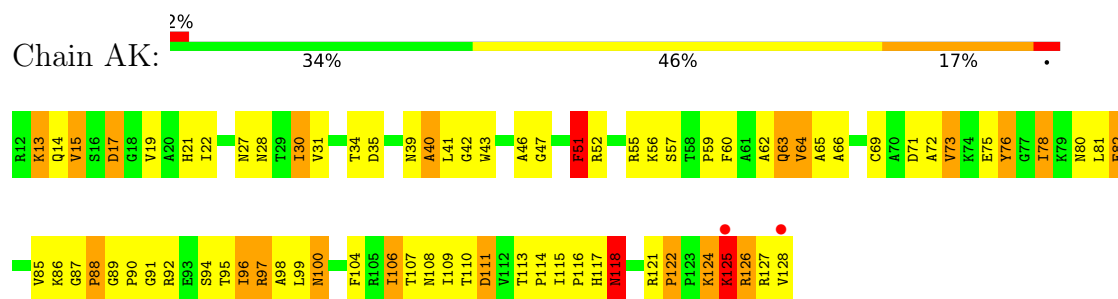
- Molecule 10: 30S ribosomal protein S10



- Molecule 10: 30S ribosomal protein S10

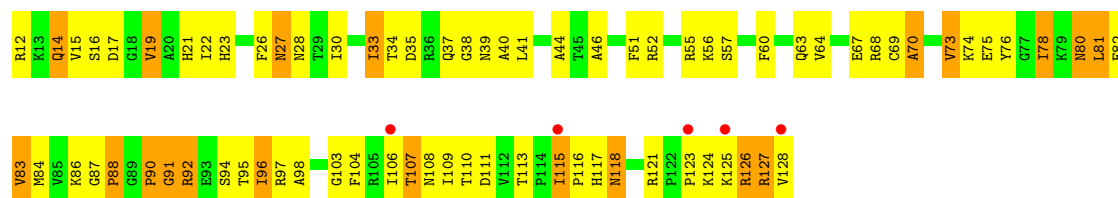


- Molecule 11: 30S ribosomal protein S11

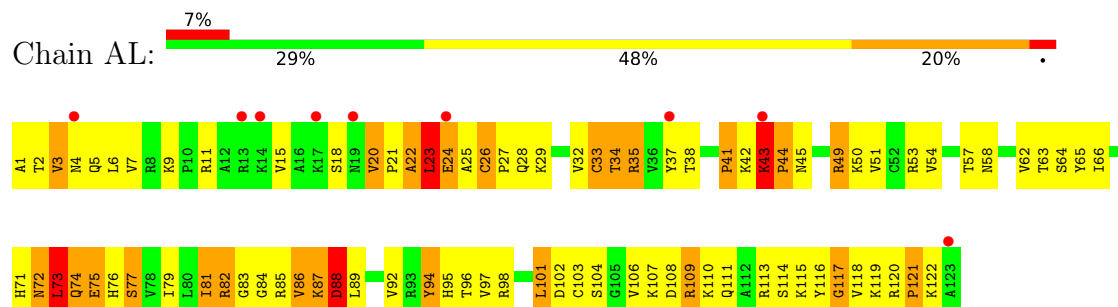


- Molecule 11: 30S ribosomal protein S11

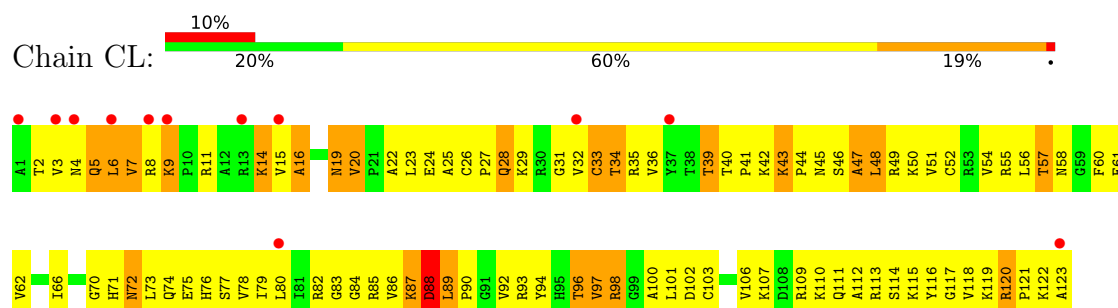




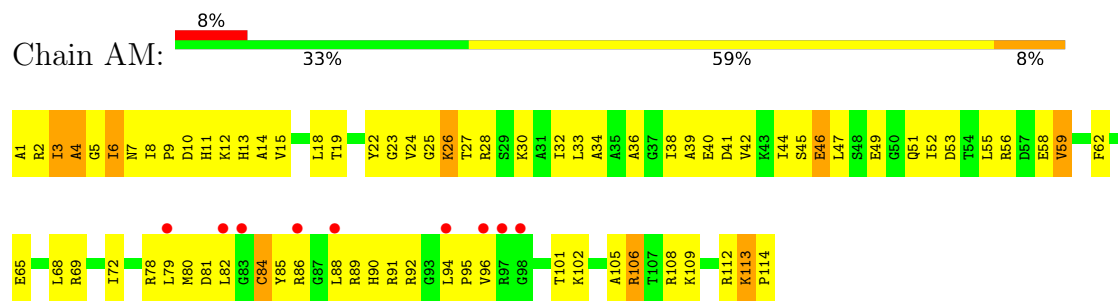
• Molecule 12: 30S ribosomal protein S12



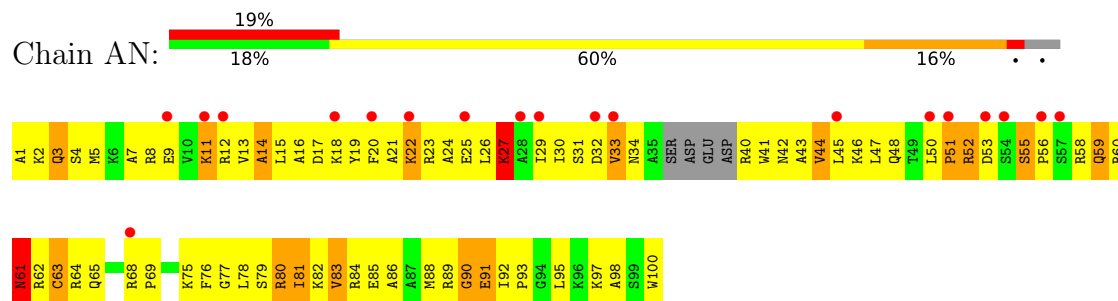
• Molecule 12: 30S ribosomal protein S12



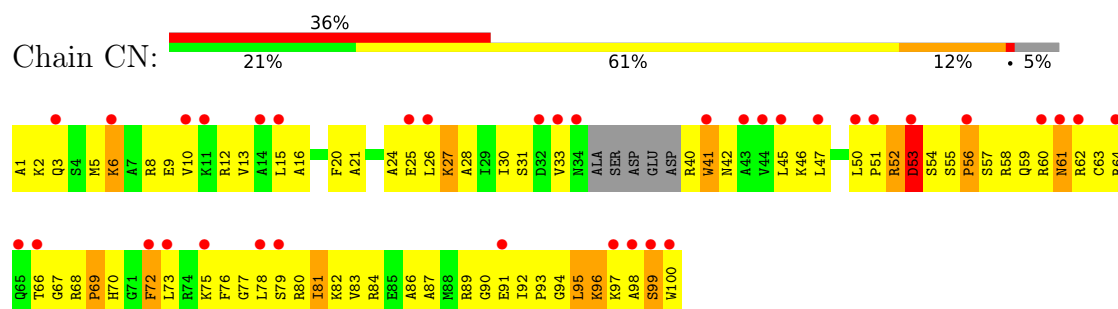
• Molecule 13: 30S ribosomal protein S13



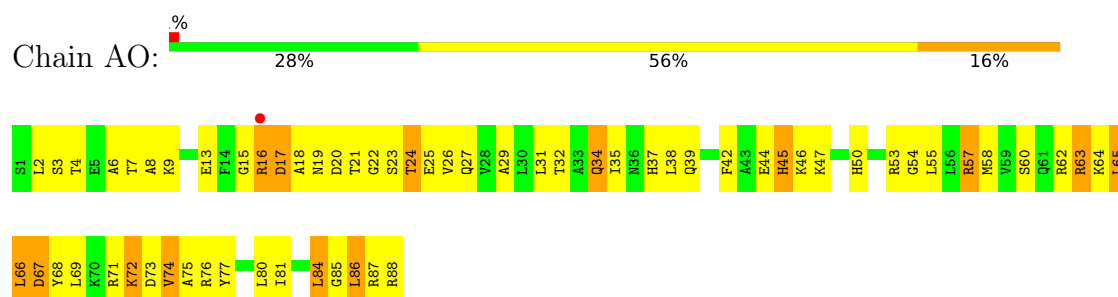
• Molecule 14: 30S ribosomal protein S14



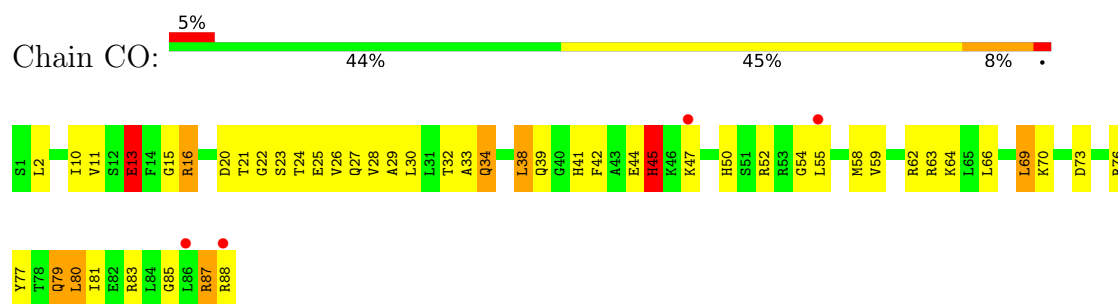
- Molecule 14: 30S ribosomal protein S14



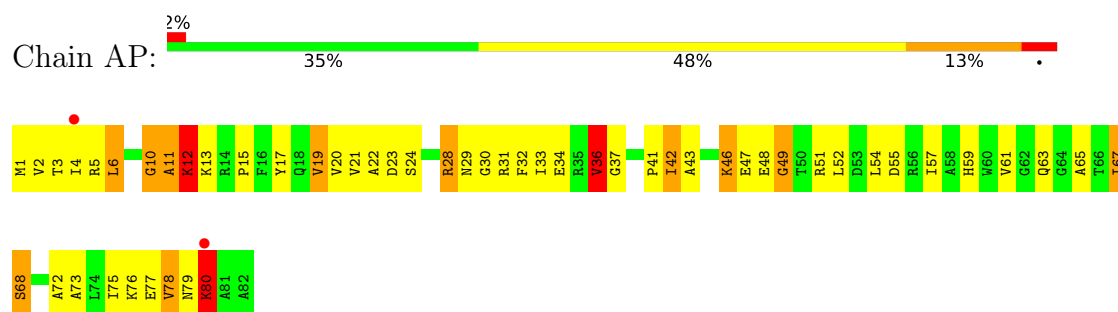
- Molecule 15: 30S ribosomal protein S15



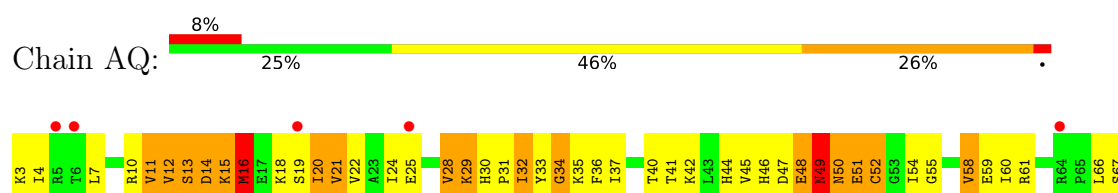
- Molecule 15: 30S ribosomal protein S15



- Molecule 16: 30S ribosomal protein S16

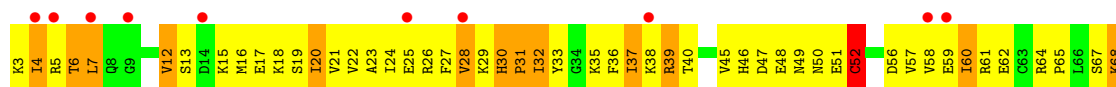


- Molecule 17: 30S ribosomal protein S17

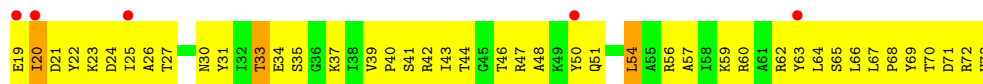




- Molecule 17: 30S ribosomal protein S17



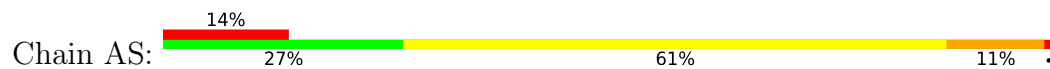
- Molecule 18: 30S ribosomal protein S18



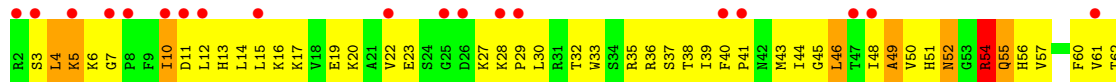
- Molecule 18: 30S ribosomal protein S18



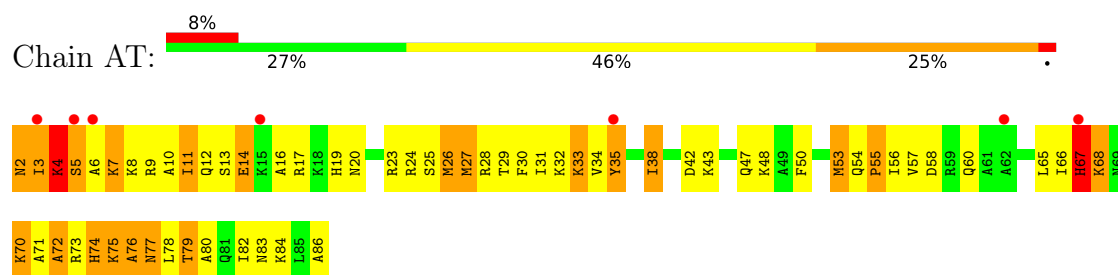
- Molecule 19: 30S ribosomal protein S19



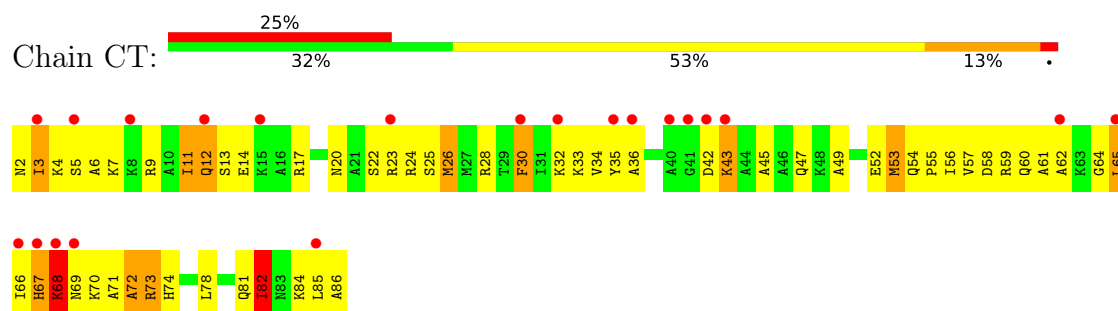
- Molecule 19: 30S ribosomal protein S19



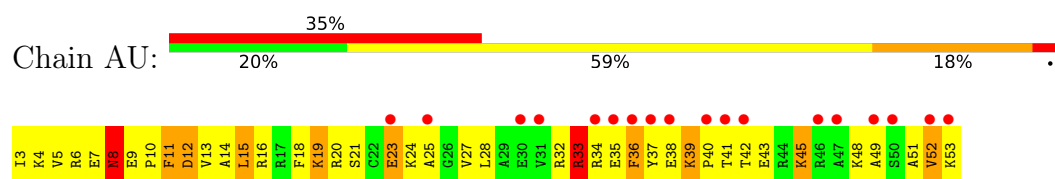
- Molecule 20: 30S ribosomal protein S20



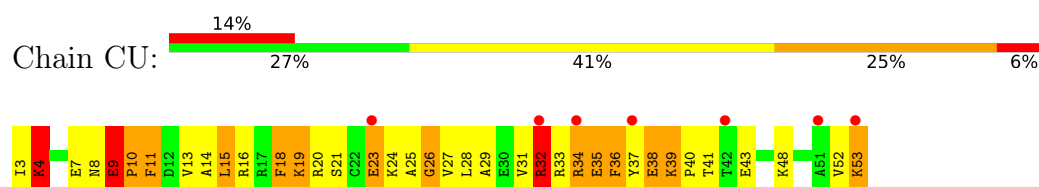
- Molecule 20: 30S ribosomal protein S20



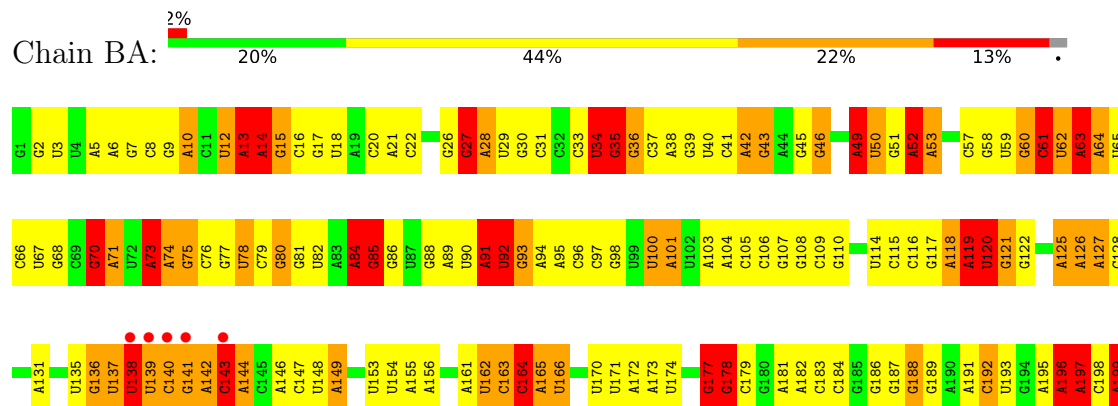
- Molecule 21: 30S ribosomal protein S21



- Molecule 21: 30S ribosomal protein S21

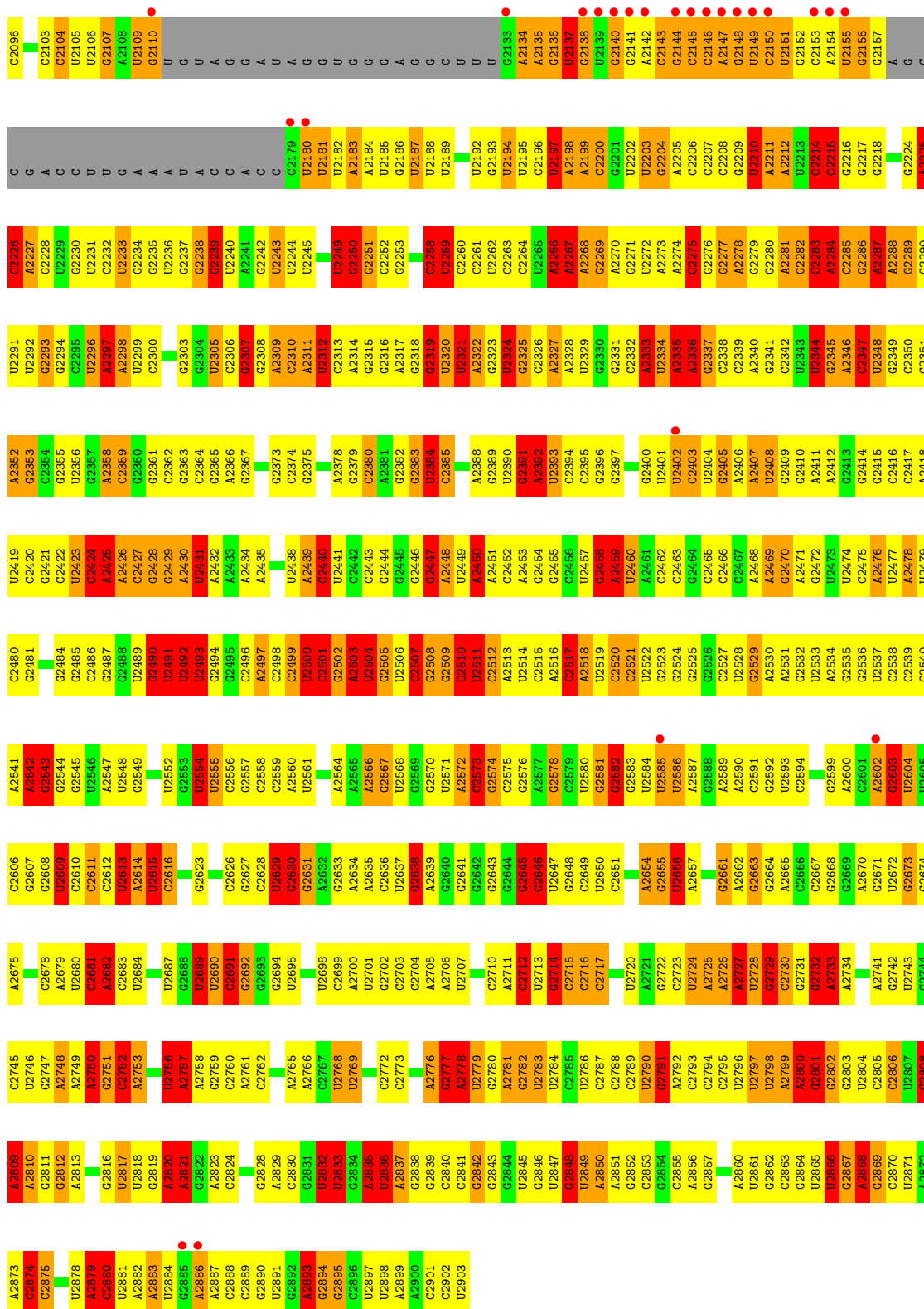


- Molecule 22: 23S rRNA

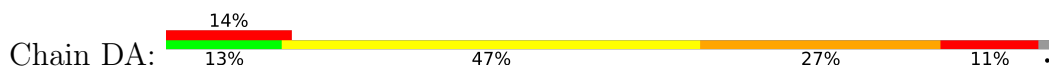


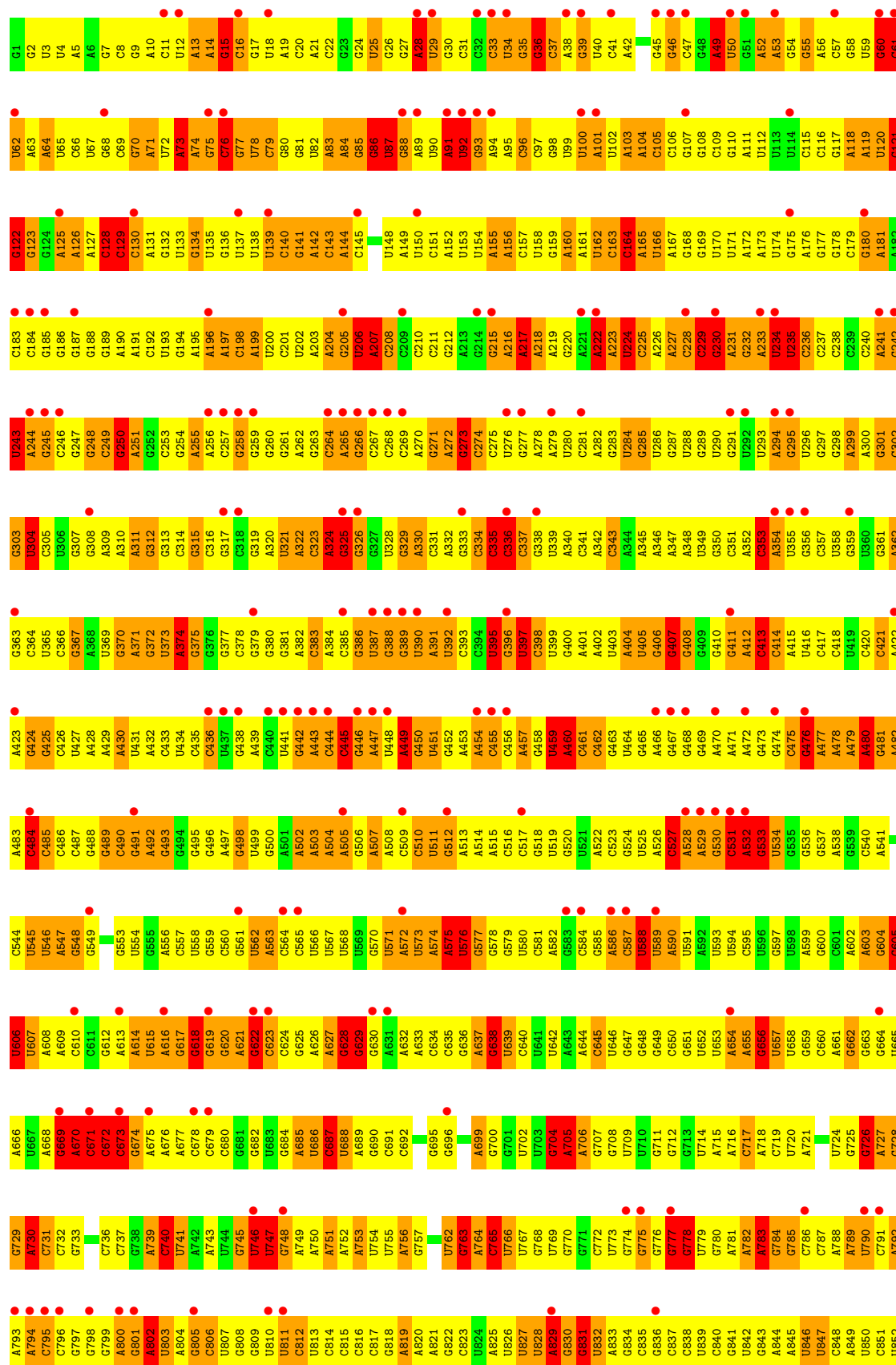
G1110	A1046	A984	A918	C951	C723	U658	C595	G535	G467	G400	A330	A265	U200
A1111	G1047	C985	U919	U852	U724	G659	U596	G536	G470	A401	C331	G266	C201
G1112	C1048	C986	A920	C953	G725	C660	U598	G537	A471	A402	A332	G267	U202
U1113	A1049	C987	C921	C954	G726	A661	U599	A538	A472	U403	G333	C268	A203
C1114	A1050	A988	G922	G855	A727	G662	G600	C540	A473	U405	C334	C269	A204
G1115	G923	A989	G923	G856	G728	G663	G601	A541	C474	U406	C335	A270	G205
G1116	A1054	A990	G927	G857	G729	G664	C602	C542	C475	G407	C336	G271	U206
C1117	G1055	C991	A927	G858	A730	U665	A602	G543	A476	G408	U339	A272	A207
G1118	G1056	C992	A928	G859	A731	A603	A603	C544	C476	G409	A340	G273	C208
U1119	A1057	C993	U929	U860	G732	G667	G604	C545	A477	G410	C341	C274	C209
G1120	U1058	C994	G930	A961	G733	A668	G605	U546	A478	C410	C342	C275	C210
C1121	G1059	C995	U931	G862	A734	G669	A608	U547	A479	G411	A342	U276	C211
A1060	U1060	A996	U932	G863	A735	A670	A609	A547	A480	A412	A345	G277	G212
U1061	U1061	G997	A933	C864	C736	C671	A609	G548	G481	C413	A346	A278	A213
G1062	U1062	C998	U934	C865	C737	G672	C610	G549	A482	C414	A347	G279	G214
A1126	G1063	C999	C935	A866	G738	C673	C611	C550	A483	C415	A348	U280	G215
G1127	C1064	U999	A936	G867	A739	G674	G612	G551	C484	U416	U349	C281	G216
G1128	U1065	A1001	C937	U868	C740	A675	A613	U552	C485	C417	A348	A282	A217
A1129	U1066	G1002	G938	G869	U741	A676	A614	G553	C486	C418	G353	U283	A218
U1130	A1067	G1003	G939	U870	A742	C679	U615	U554	G489	U419	U353	U284	A219
G1131	G1068	U1004	G940	U871	A743	A616	A616	G555	C490	G420	C357	G285	A221
U1132	A1069	C1005	A941	U872	U744	G680	G617	A556	C491	C421	U358	U286	A222
A1133	A1070	G1005	G942	U873	G745	G681	G618	C557	A492	A422	U359	U287	U224
C1134	G1071	G1006	A943	G875	U746	G682	G619	U558	A493	A423	U360	U288	C225
G1135	G1072	A1008	C944	C876	U747	A621	A621	C580	C495	G424	G361	A226	A227
U1136	A1073	A1009	A945	A877	G748	A622	G622	G561	G496	A428	A362	C228	C228
G1137	G1074	G1010	A946	U878	A749	U686	C623	U562	A497	U429	G363	G295	U290
U1138	C1075	G1011	A947	C885	A750	C687	C624	C563	C498	A430	C364	U296	G291
G1139	U1076	U1012	A947	C886	A751	U688	G625	C564	U499	U431	U365	A231	A231
A1140	C1076	C1013	A947	C887	A752	U688	G626	C565	G500	U434	C366	G232	G232
U1141	A1077	A1014	A948	C888	A753	U689	A627	U566	A501	C435	A300	A233	A233
A1142	U1078	U1015	C944	C889	U754	U694	G628	U567	A502	C436	G301	U294	U294
U1143	C1079	G1016	U955	U894	U755	G695	G628	U568	A503	U437	G370	G302	G302
A1144	A1080	G1017	U956	C895	U756	G696	G629	U569	A504	G371	A371	G303	C236
C1145	U1081	U1018	C957	C896	U757	G697	A631	G570	A505	U441	G372	U304	C239
U1148	U1082	U1019	U958	C897	C758	G698	A632	U571	G506	G442	U373	C305	C240
G1149	U1083	A1020	A959	C898	G759	C699	A633	U572	A507	A443	A374	G307	A241
A1150	A1084	G1021	A960	U894	A761	G700	C634	A573	A508	C444	G377	G308	G242
C1152	A1085	G1022	C961	U895	U762	G701	C635	U574	C509	C445	C378	A309	U243
G1153	U1086	U1023	G962	U896	U763	U702	G636	A575	U511	U446	G311	G245	G245
A1154	A1088	G1024	U963	A896	C765	U703	A637	U576	G512	U448	A382	C246	C246
U1155	A1089	G1025	C964	C897	A764	U704	G638	U577	A513	A449	C383	G247	G247
A1156	A1090	G1026	G965	C898	C765	G705	U639	U578	A514	G450	A384	G312	G312
U1157	A1091	A1027	U966	A899	U766	A705	C640	G579	U521	G451	C385	G313	G313
G1158	G1092	C1029	C968	U900	U767	A706	U641	C581	A522	A453	G386	G314	G249
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G1160	A1095	A1032	G971	A905	G774	U709	G645	U580	U525	C456	G389	G319	G254
C1161	U1096	U1033	A972	U906	G775	U710	U646	C581	A526	A457	U390	A255	A255
G1162	U1097	G1034	A973	G907	G776	G711	G647	A582	C527	G458	A391	G258	G258
U1163	A1098	G1037	G974	C908	G777	G712	G648	G584	U529	C459	U392	G259	G259
C1164	G1099	A975	A909	U975	U778	G713	G649	G585	A530	A460	U395	G260	G260
A1165	A1103	G1038	A910	A910	U779	U714	C650	U586	C531	A463	C396	G261	G261
G1166	G1166	A1039	G976	A911	U780	A715	G651	C587	A532	U459	U397	A262	A262
C1167	U1105	G1040	G977	C912	A781	U716	U652	U588	A533	G465	G398	G263	G263
U1168	U1106	A1041	G978	U913	A782	C717	U653	U589	C530	A460	U399	G264	G264
A1169	G1106	G1042	A979	U914	A783	A718	A654	U591	C531	G463	C396	G265	G265
G1170	U1107	C1043	A980	C914	A784	C719	A655	U592	A532	U464	U397	G266	G266
U1171	U1108	C1044	A981	C915	G784	U720	G656	A593	A533	G465	G398	G267	G267
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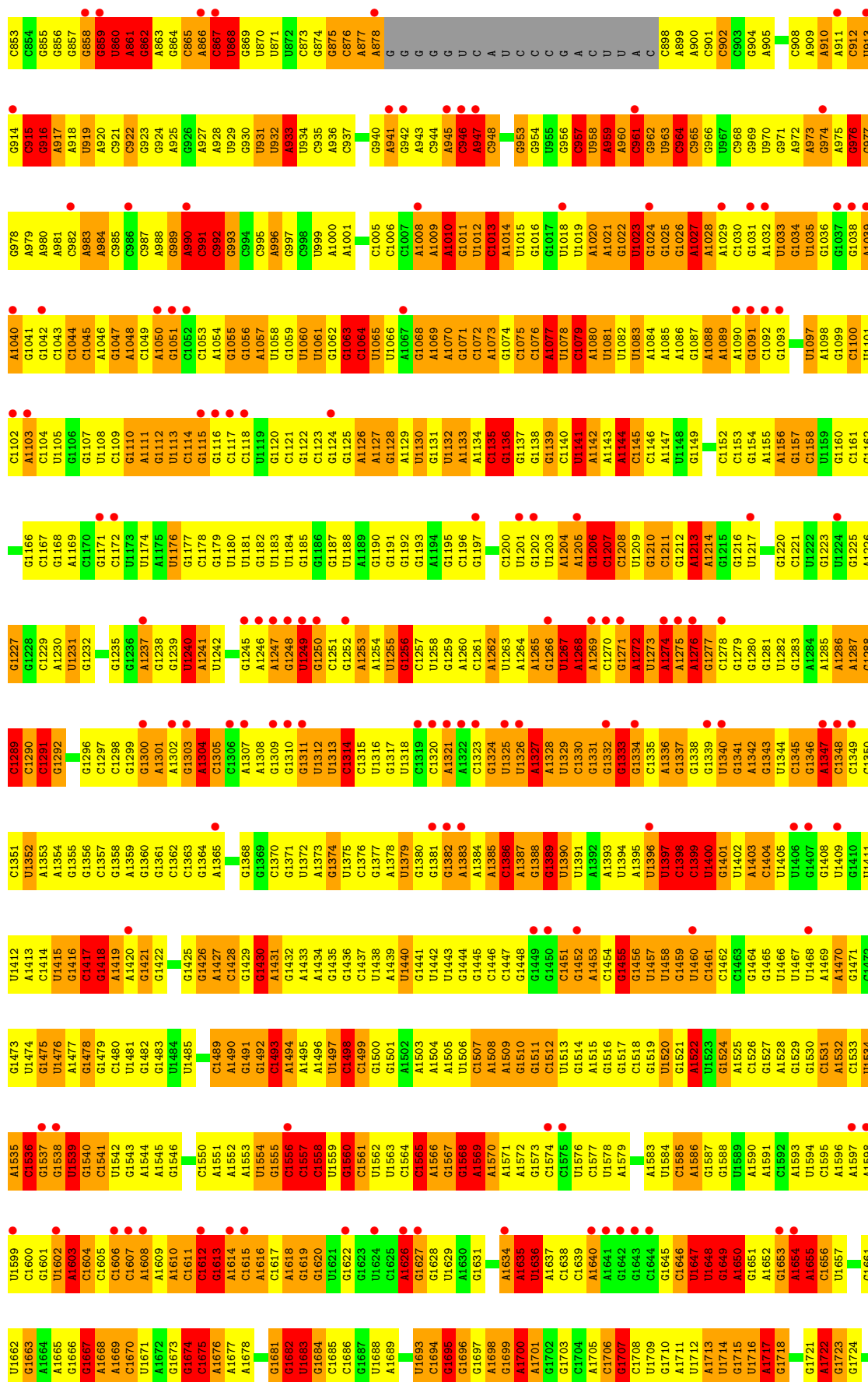
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G2032	U1963	C1765	G1828	U1765	A1700	A1636	A1569	U1497	A1432	G1370	G1304	U1242	A1176
A2033	G1964	U1766	A1829	U1766	A1701	U1637	A1570	U1498	A1433	G1371	C1305	U1243	A1175
U2034	C1965	G1767	C1830	G1767	G1703	C1638	A1571	C1499	A1434	U1372	C1306	G1245	G1177
G2035	A1900	A1768	G1831	G1768	G1703	G1768	U1576	G1500	G1435	A1373	G1309	A1246	C1178
C2036	A1901	U1769	C1832	U1769	C1706	A1641	U1577	G1501	G1436	G1374	A1247	A1247	G1179
A2037	C1902	G1770	G1833	G1770	G1707	G1642	C1577	A1502	C1437	U1375	G1310	U1248	U1180
G2038	G1903	A1773	U1834	U1778	G1707	G1643	C1578	A1503	U1438	G1376	G1311	G1248	U1181
U2039	G1904	A1773	G1835	U1778	G1707	G1643	C1579	A1504	A1439	G1377	G1312	U1249	G1182
G2040	C1905	C1774	G1836	U1774	U1709	G1644	A1580	U1505	U1440	A1378	U1313	U1250	G1183
U2041	G1906	U1775	G1837	U1775	G1710	G1645	A1581	U1506	U1441	A1379	U1314	G1251	U1184
A2042	G1907	G1776	G1838	U1776	A1711	G1646	C1582	G1507	G1444	U1380	C1315	G1252	G1185
C2043	G1908	U1777	G1839	U1777	U1712	U1647	A1583	A1508	G1445	G1381	U1316	A1253	G1186
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C2047	A1913	A1781	G1843	U1781	G1715	G1651	A1587	G1512	G1451	A1385	C1320	G1257	G1190
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G2061	C1997	U1795	G1858	U1795	G1731	G1666	A1603	U1536	U1466	G1401	C1335	U1274	G1210
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C2065	A1932	C1800	G1862	C1800	G1735	C1670	C1607	G1540	A1470	U1405	G1339	G1278	A1214
A2066	U1932	U1801	G1863	U1801	A1736	U1671	A1608	C1541	G1471	U1340	U1340	G1280	G1218
G2067	G1935	A1802	U1864	A1802	U1736	A1672	A1609	U1542	G1472	G1341	A1342	U1281	U1219
A2068	A1936	U1803	U1865	U1803	G1737	G1673	A1610	G1543	G1473	G1342	U1343	U1282	U1220
G2069	U1937	C1804	G1866	C1804	G1738	G1674	C1611	G1544	U1474	G1343	U1344	U1283	C1221
C2070	U1938	A1805	G1867	U1805	A1739	A1675	G1612	G1546	U1475	U1411	A1284	U1284	G1222
A2071	U1939	G1806	C1868	G1806	G1740	C1676	G1613	G1547	U1476	U1412	A1285	G1226	G1227
G2072	A1808	U1809	G1869	U1808	A1744	U1680	A1614	A1549	A1477	A1413	U1292	G1228	C1229
U2076	C1942	A1810	C1870	A1810	A1745	G1681	C1615	C1550	G1478	C1414	A1347	A1290	C1233
A2077	U1943	G1811	A1871	G1811	A1746	G1682	A1616	G1551	G1479	U1415	C1348	U1294	G1234
C2078	U1944	U1812	A1872	U1812	A1747	U1683	C1617	A1553	U1480	G1416	C1349	G1295	U1296
U2079	G1945	G1813	C1873	G1813	C1748	G1684	A1618	U1554	U1481	C1417	U1352	U1296	G1235
A2080	U1946	G1814	C1874	G1814	A1749	G1685	G1619	G1555	G1482	G1418	A1353	G1297	G1236
U2081	C1947	U1815	A1875	U1815	G1750	C1685	G1619	C1556	G1483	A1419	A1354	G1298	A1237
A2082	U1948	C1816	G1876	C1816	G1751	U1688	G1622	C1557	U1484	A1420	G1355	G1299	G1238
G2083	C1951	G1817	A1877	G1817	A1754	A1689	G1623	C1558	U1485	G1421	C1356	C1299	A1301
U2086	A1952	U1818	G1878	U1818	A1755	A1690	U1624	U1559	U1486	G1422	C1357	U1294	G1239
C2087	G1953	C1819	C1879	A1819	G1756	C1691	C1625	G1560	U1487	G1423	G1358	U1294	G1240
G2088	U1954	U1819	G1879	U1819	A1757	C1692	A1626	G1561	G1488	G1424	A1359	G1296	G1241
A2089	U1955	A1820	U1882	U1820	U1758	U1693	G1627	U1562	G1489	G1425	G1360	G1297	G1242
U2090	C1956	C1821	G1875	C1821	A1759	U1694	G1628	U1563	G1490	G1426	C1363	G1298	G1243
C2091	U1957	U1883	G1884	U1883	A1759	C1694	G1628	U1564	G1491	G1427	C1364	G1299	G1244
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G2093	U1959	U1886	G1887	U1886	A1762	C1697	G1633	A1566	A1494	G1429	A1365	G1301	G1246
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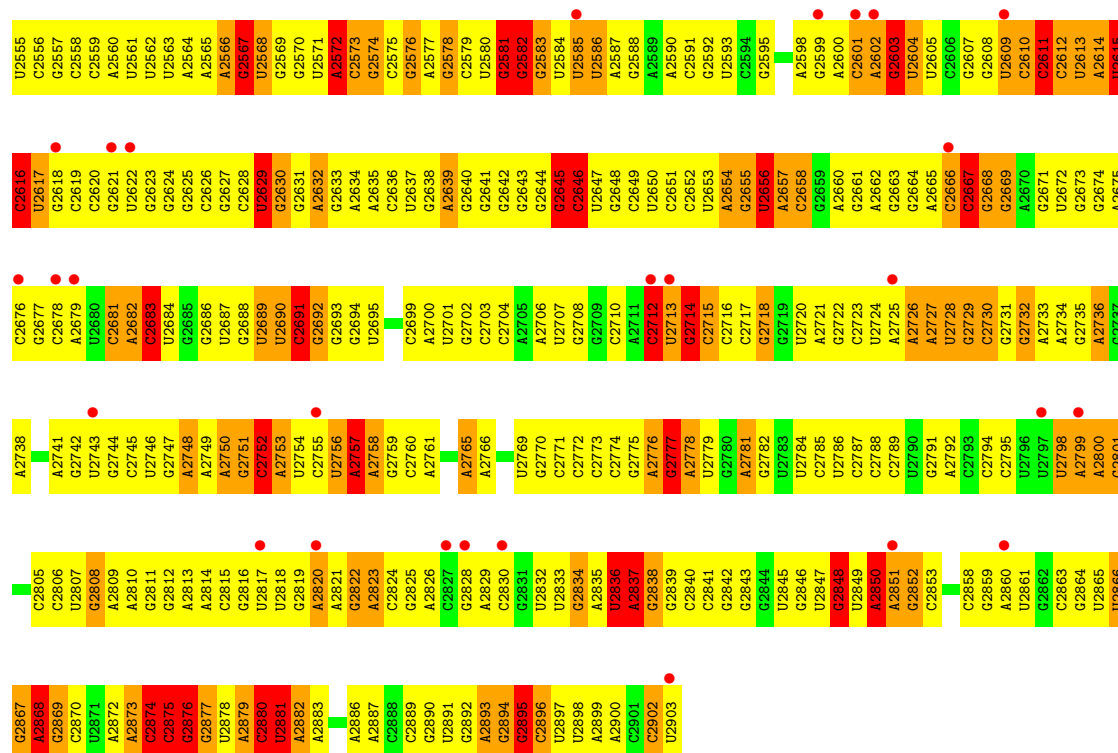
- Molecule 22: 23S rRNA



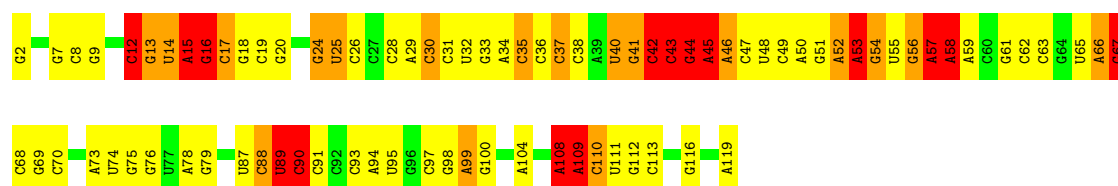




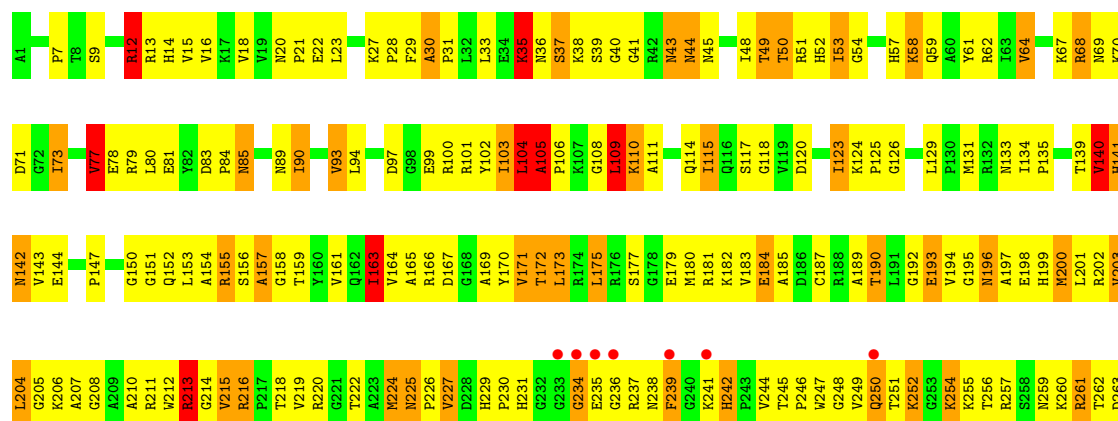
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G2494	C2427	C2364	G2304	U2244	U2180	G2056	G1992	G1921	A1854	C1790	U1729
A2497	G2428	A2366	U2305	U2245	U2181	G2057	U1993	C1924	G1857	A1791	G1730
C2498	G2429	G2366	C2306	U2246	U2182	U2058	C1994	U1925	C1792	G1792	G1731
C2499	U2430	G2367	G2307	U2247	A2183	A2059	U1995	U1926	C1793	C1793	G1732
U2500	A2431	C2368	G2308	C2248	A2184	A2060	C1997	A1927	A1794	G1794	G1733
C2501	A2432	A2369	A2309	U2249	U2185	G2061	A1998	A1928	C1795	A1759	G1734
G2502	A2433	G2370	C2310	G2250	U2186	A2062	A1999	G1929	U1796	G1735	A1736
G2503	A2434	G2371	U2312	G2251	U2187	C2063	C2000	G1930	G1797	U1798	U1737
U2504	A2435	U2372	C2313	G2252	U2188	C2064	U1991	U1931	G1799	G1738	G1738
U2505	U2438	G2373	A2314	C2253	U2189	C2065	C2001	U1932	C1800	A1739	A1739
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C2510	G2443	U2378	U2319	U2258	C2196	A2070	U2011	A1937	A1805	A1744	A1744
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U2518	U2451	U2386	A2327	A2266	U2079	C2079	A2019	G1945	G1814	A1754	A1754
U2519	A2452	A2387	G2328	A2267	A2080	A2080	A2020	U1946	C1881	C1755	C1755
C2520	G2454	A2388	A2329	A2268	A2205	U2085	C2021	U1951	U1882	G1756	G1756
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C2529	G2463	C2397	C2339	A2277	C2215	A2094	U2030	C1963	U1825	U1765	U1765
A2530	U2464	A2401	C2340	G2278	G2216	C2095	A2031	U1964	G1826	G1766	G1766
C2531	C2465	C2402	A2341	U2280	G2217	A2096	G2032	U1965	U1827	G1767	G1767
G2532	U2466	U2404	G2342	A2281	U2218	U2097	U2033	C1966	G1828	C1768	C1768
U2533	C2467	G2405	U2343	G2282	U2219	U2098	U2034	A1967	A1829	G1769	G1769
A2534	A2468	A2406	G2344	C2283	G2220	G2100	C2035	C1968	C1830	G1770	G1770
U2537	U2470	U2407	G2345	A2284	G2221	A2101	C2036	A1969	C1833	A1771	A1771
C2538	G2471	U2408	A2346	C2285	C2222	G2102	G2038	U1970	G1834	A1772	A1772
C2539	U2473	G2409	C2347	G2286	G2223	C2103	U2039	A1971	G1835	C1773	C1773
C2540	U2474	A2411	U2348	A2287	G2224	U2104	G2040	G1972	C1836	U1774	U1774
A2541	C2475	A2412	G2349	G2288	A2225	C2105	U2041	C1973	G1905	U1775	U1775
U2542	A2476	G2413	C2350	G2289	G2226	U2106	A2042	G1974	G1906	G1776	G1776
G2543	U2477	U2414	G2351	U2290	A2227	G2107	C2043	C1975	G1907	U1777	U1777
C2544	A2478	G2415	A2352	U2291	G2228	A2108	C2044	G1976	G1839	U1778	U1778
U2545	U2479	C2416	G2353	U2292	U2229	U2109	C2045	U1910	G1840	U1779	U1779
G2546	G2481	C2417	C2354	G2293	U2230	U2110	G2046	G1911	C1841	A1780	A1780
A2547	A2482	A2418	G2355	U2294	U2231	U	A1981	A1912	C1843	U1781	U1781
U2548	C2483	U2419	U2356	U2295	C2232	G	U1982	A1913	C1844	U1782	U1782
G2549	U2484	G2420	G2357	U2296	U2233	U	G2048	C1914	G1845	A1783	A1783
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C2551	U2489	C2422	C2359	U2298	U2235	C	A2050	C1985	A1847	A1785	A1785
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C2553	U2491	C2424	G2361	C2300	G2237	A	G2052	A1917	A1849	A1787	A1787
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- Molecule 23: 5S rRNA



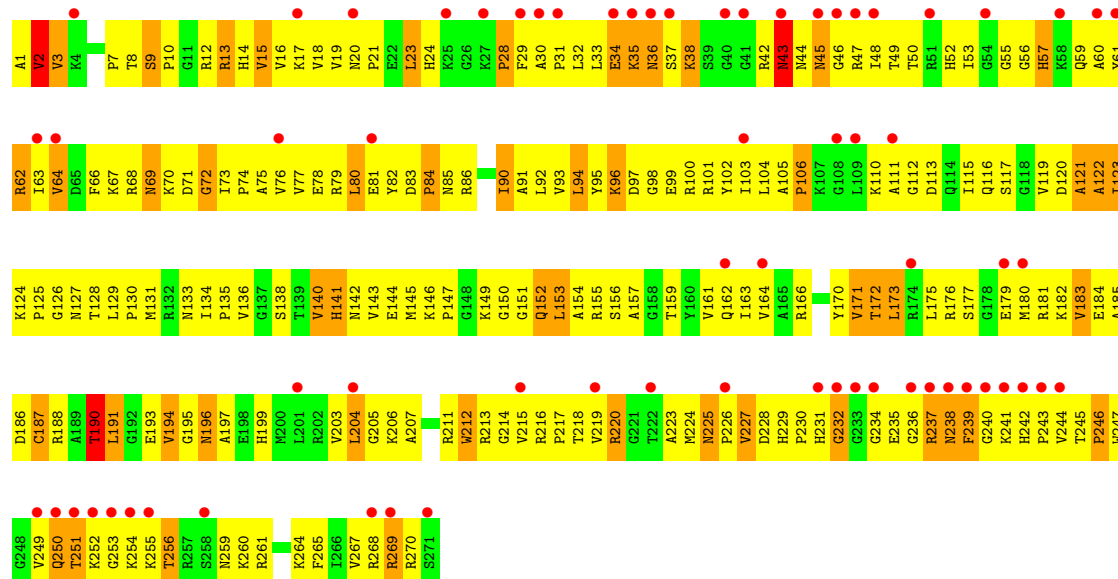
- Molecule 24: 50S ribosomal protein L2



K264
F266
I266
V267
R268
R269
R270
S271

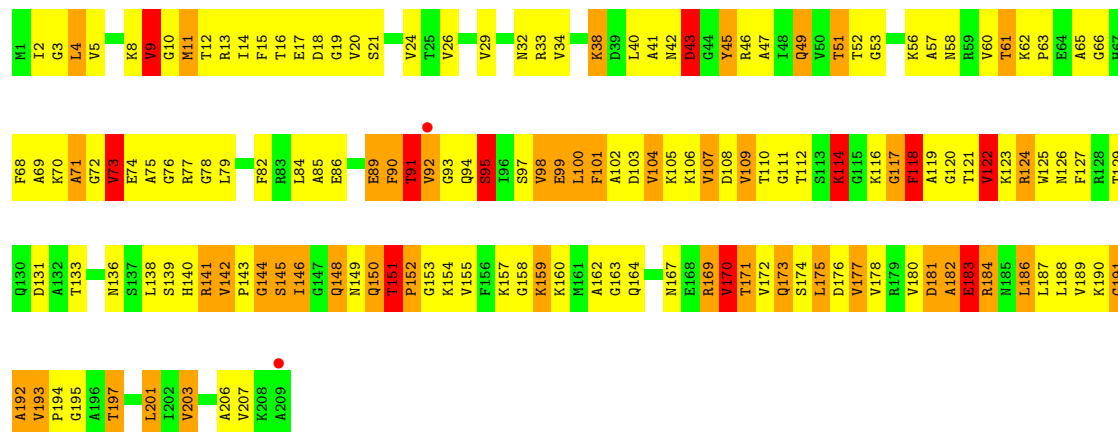
• Molecule 24: 50S ribosomal protein L2

Chain DC: 25% 20% 60% 19%



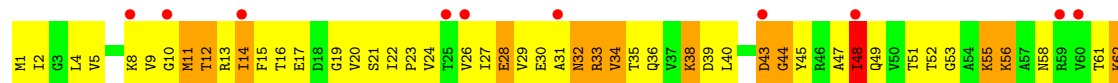
• Molecule 25: 50S ribosomal protein L3

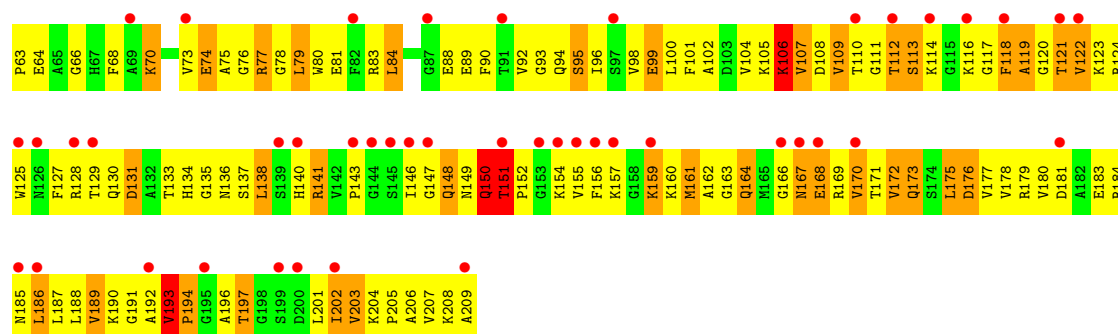
Chain BD: % 25% 48% 21% 5%



• Molecule 25: 50S ribosomal protein L3

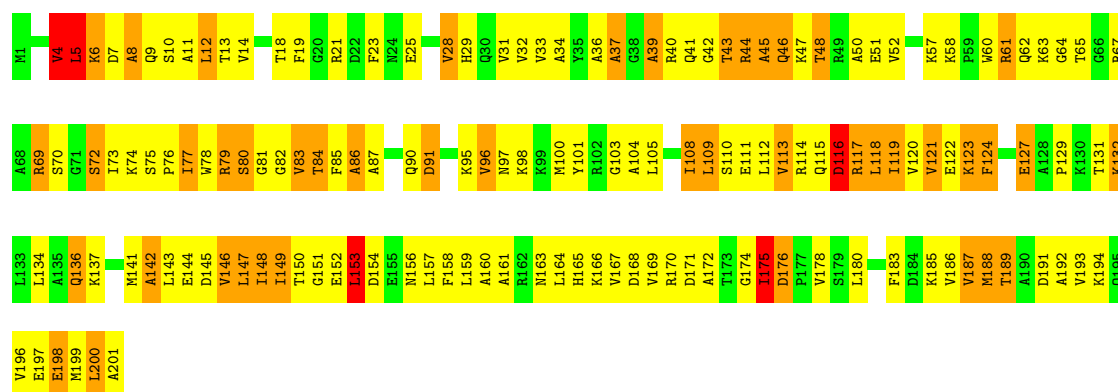
Chain DD: 26% 20% 55% 23%





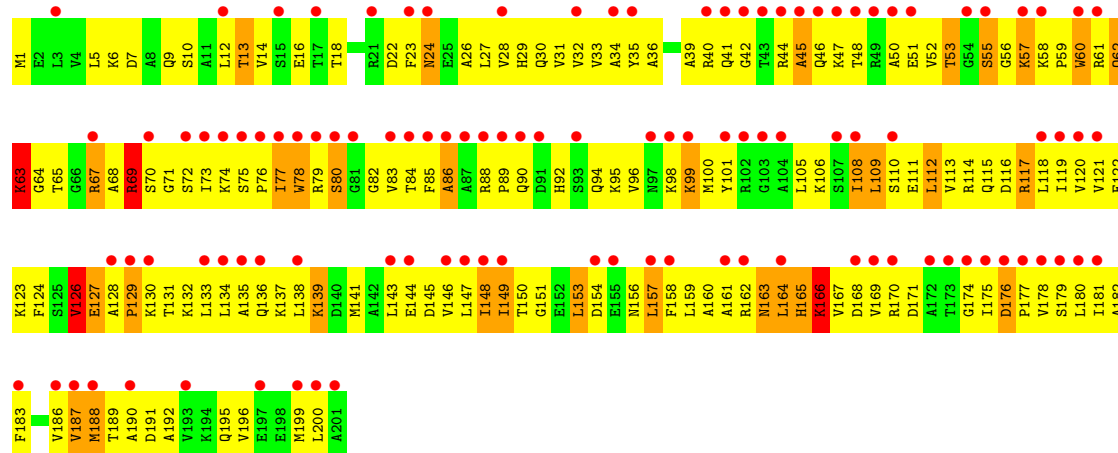
• Molecule 26: 50S ribosomal protein L4

Chain BE: 25% 50% 22%



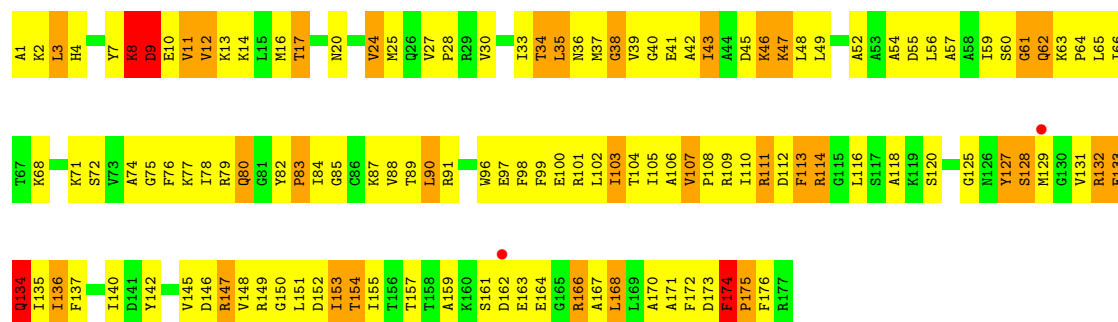
• Molecule 26: 50S ribosomal protein L4

Chain DE: 20% 54% 63% 15%

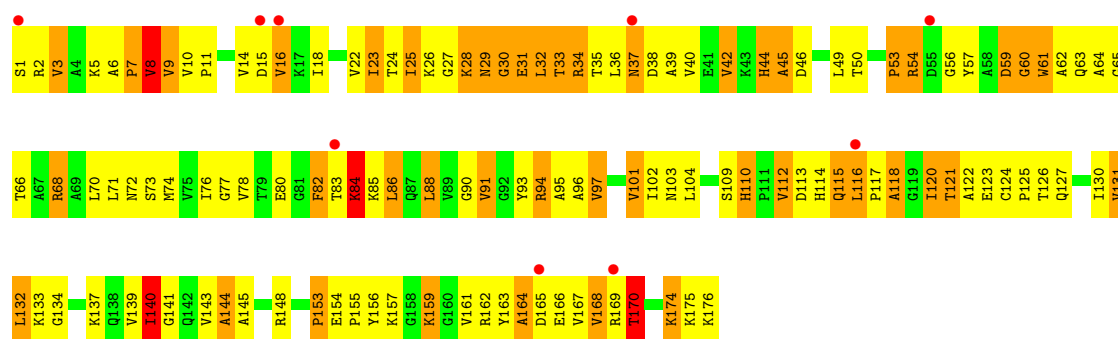


• Molecule 27: 50S ribosomal protein L5

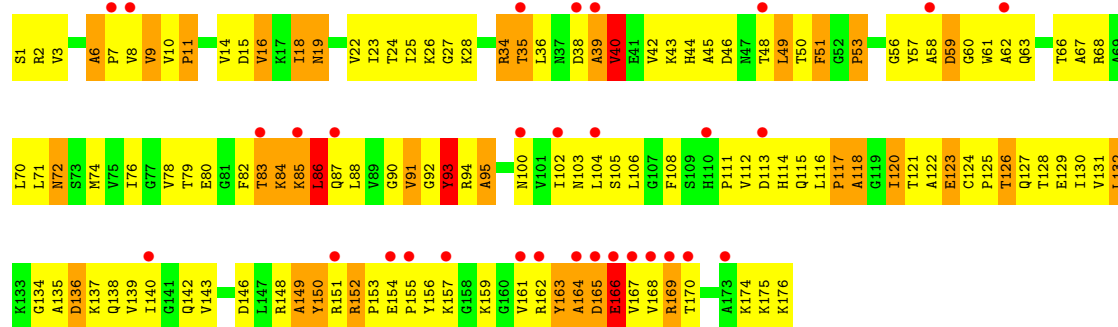
Chain BF: 27% 53% 18%



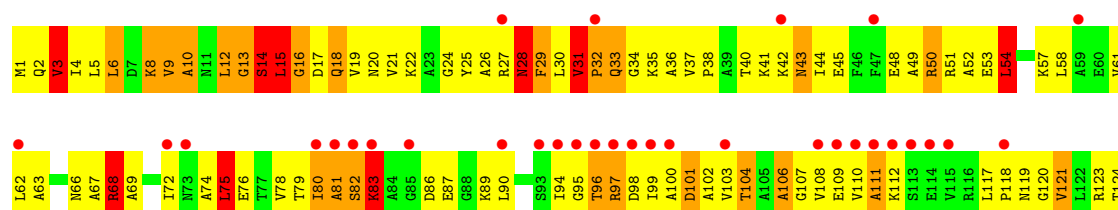
• Molecule 28: 50S ribosomal protein L6



• Molecule 28: 50S ribosomal protein L6

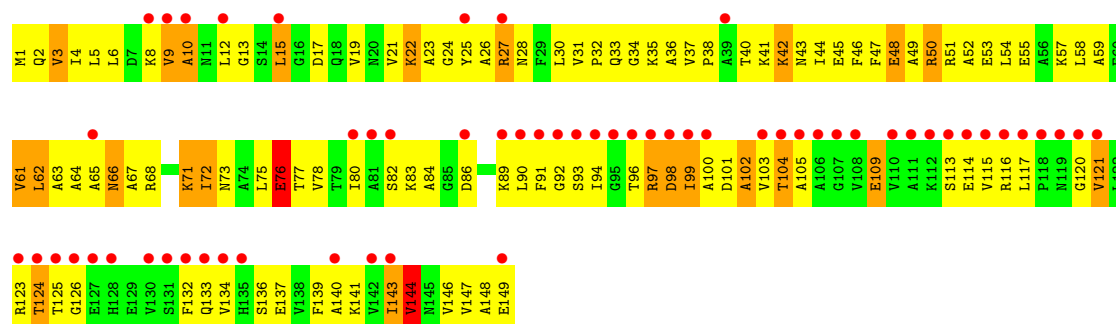


• Molecule 29: 50S ribosomal protein L9

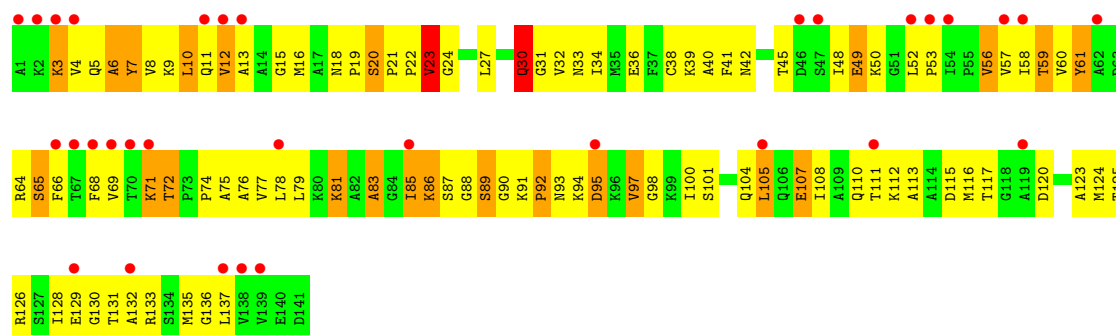




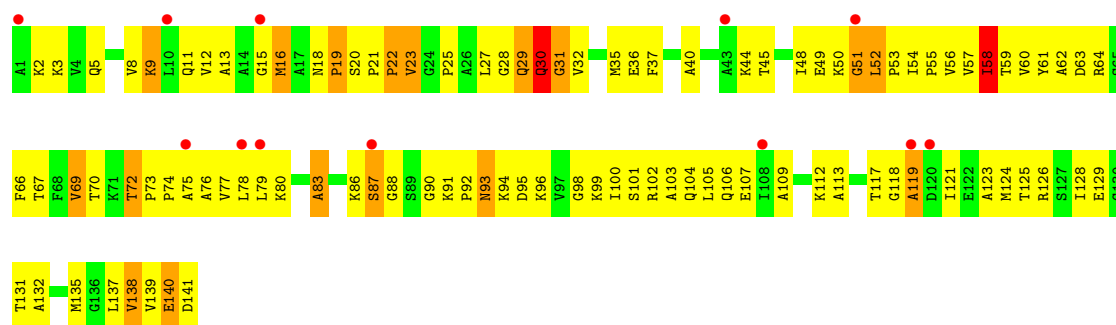
• Molecule 29: 50S ribosomal protein L9



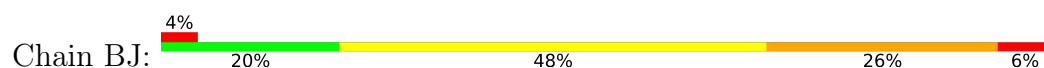
• Molecule 30: 50S ribosomal protein L11

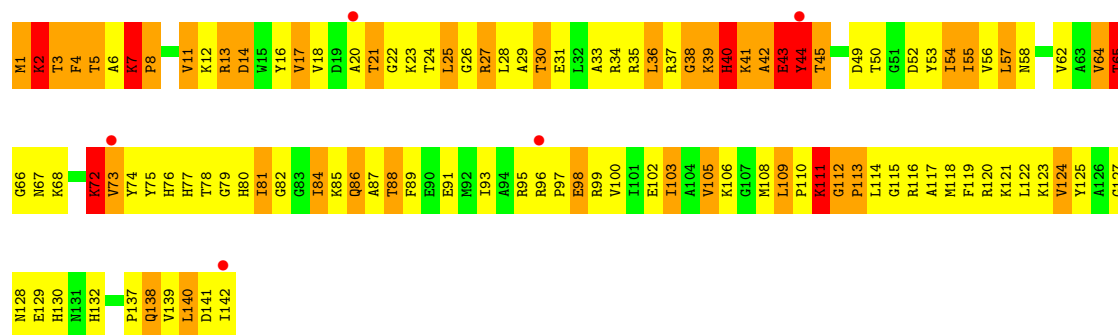


• Molecule 30: 50S ribosomal protein L11

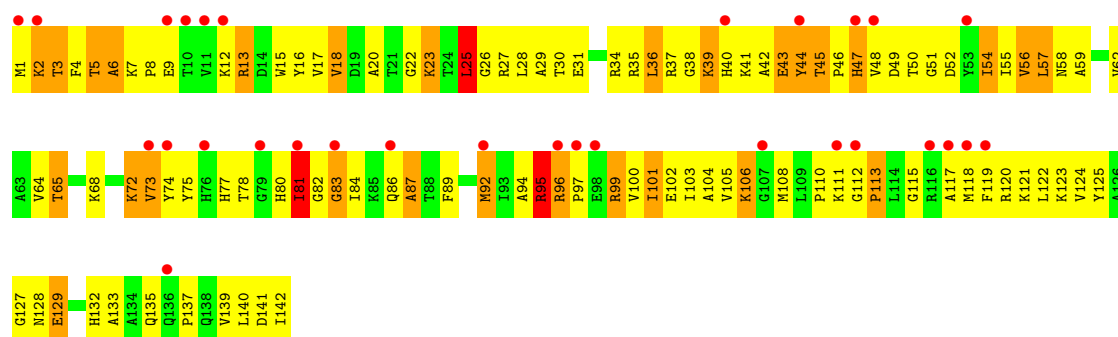


• Molecule 31: 50S ribosomal protein L13

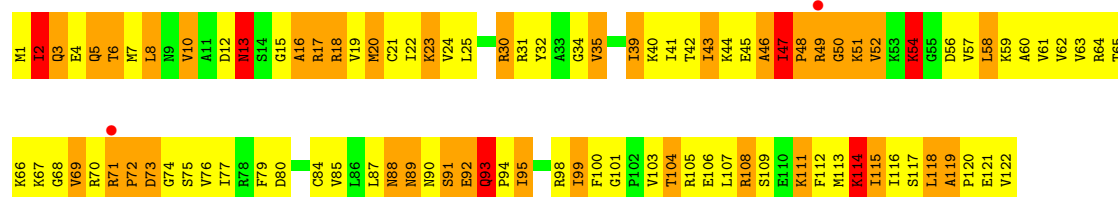
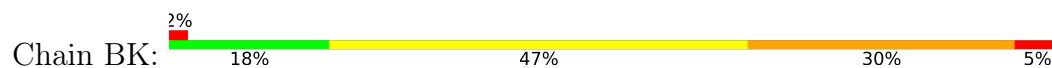




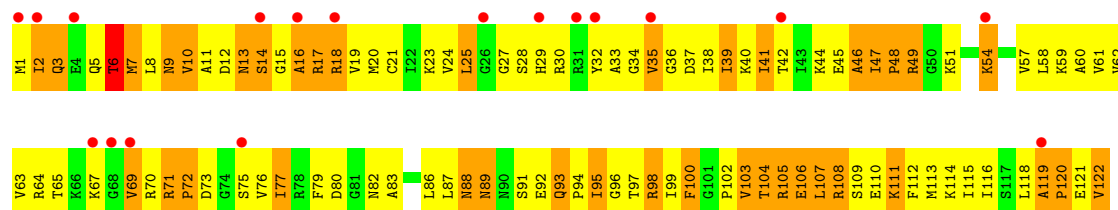
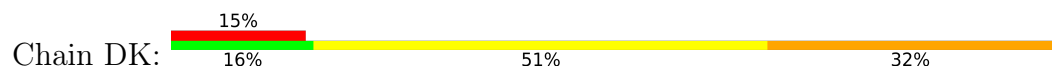
• Molecule 31: 50S ribosomal protein L13



• Molecule 32: 50S ribosomal protein L14

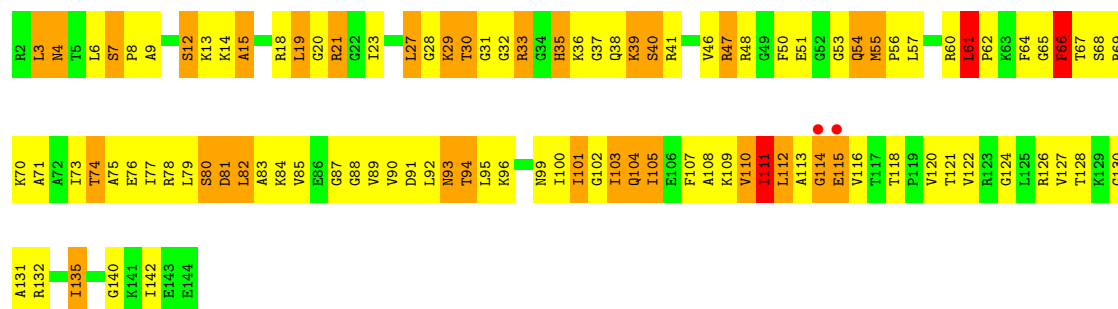


• Molecule 32: 50S ribosomal protein L14

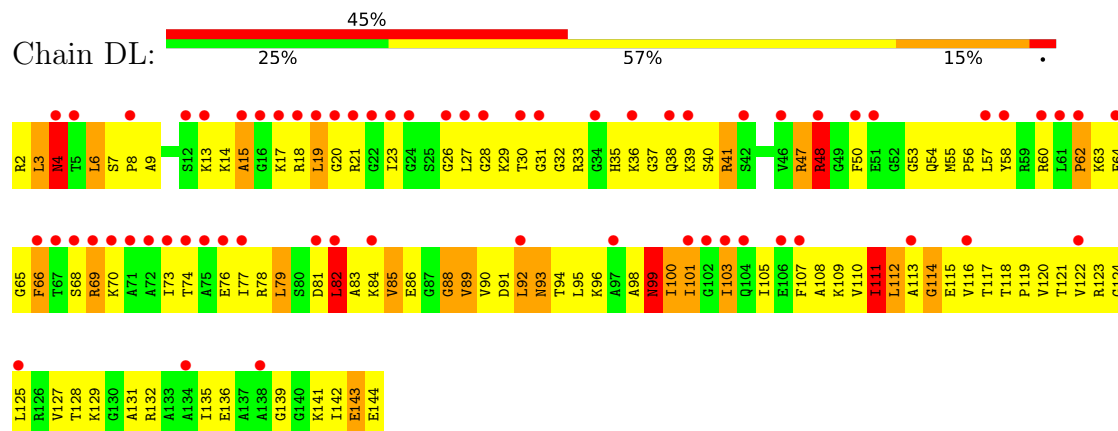


• Molecule 33: 50S ribosomal protein L15

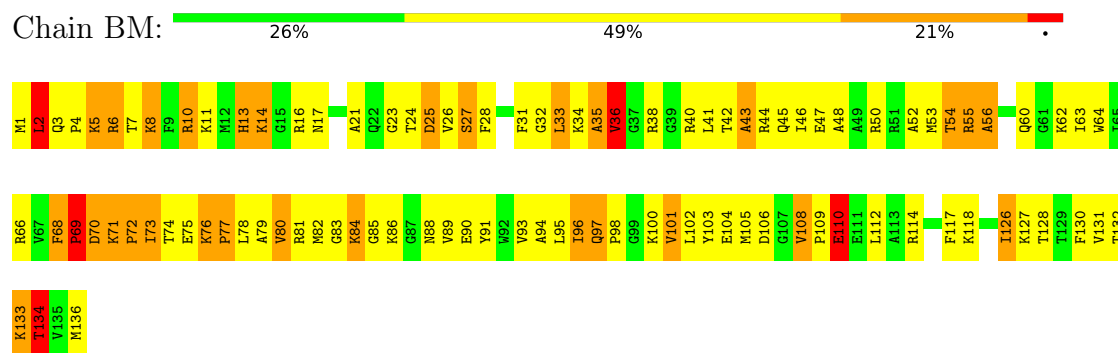




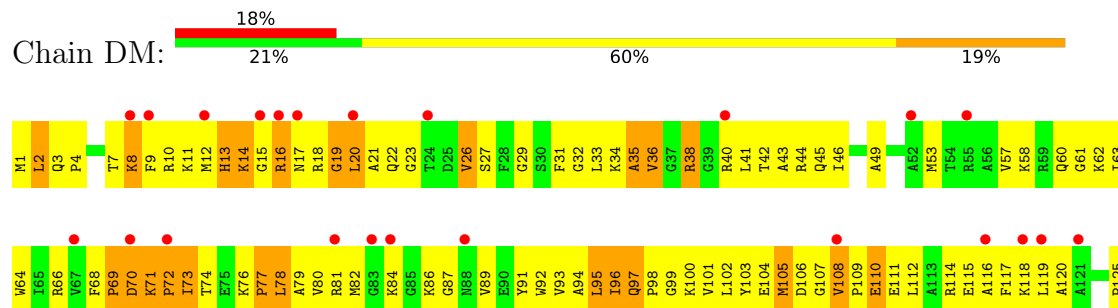
• Molecule 33: 50S ribosomal protein L15

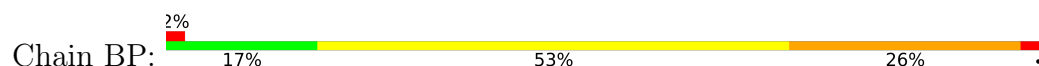


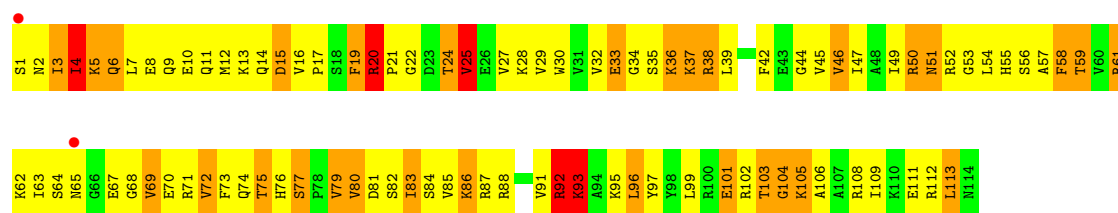
• Molecule 34: 50S ribosomal protein L16



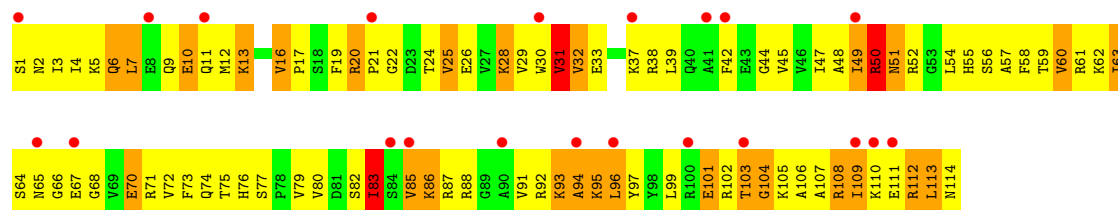
• Molecule 34: 50S ribosomal protein L16



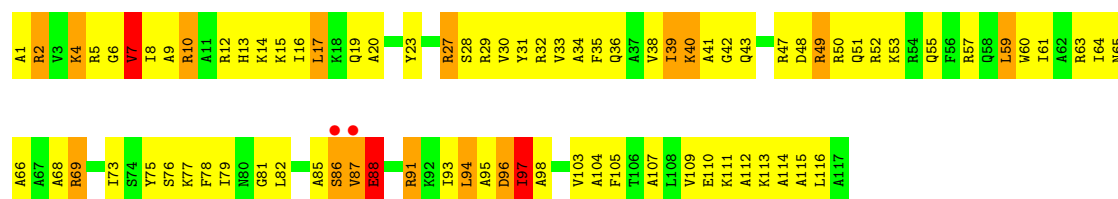




• Molecule 37: 50S ribosomal protein L19



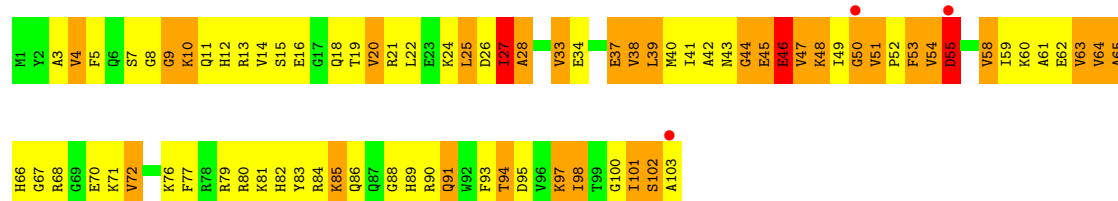
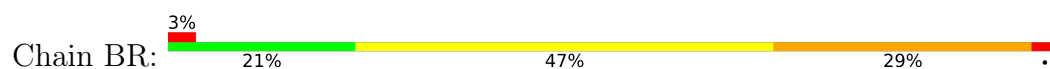
• Molecule 38: 50S ribosomal protein L20



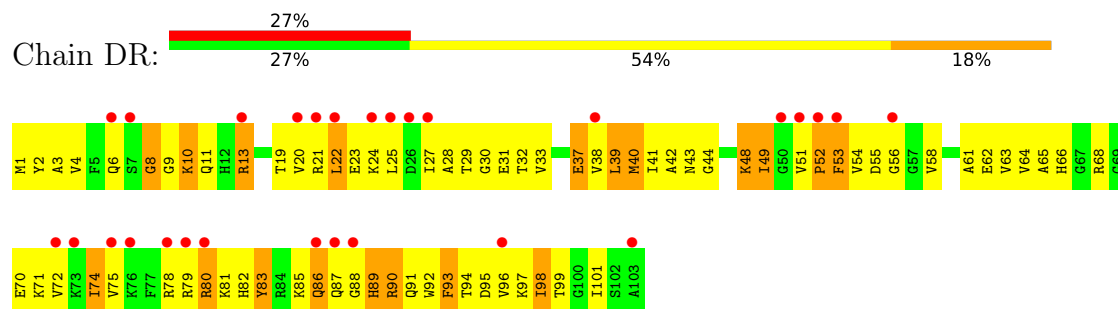
• Molecule 38: 50S ribosomal protein L20



• Molecule 39: 50S ribosomal protein L21



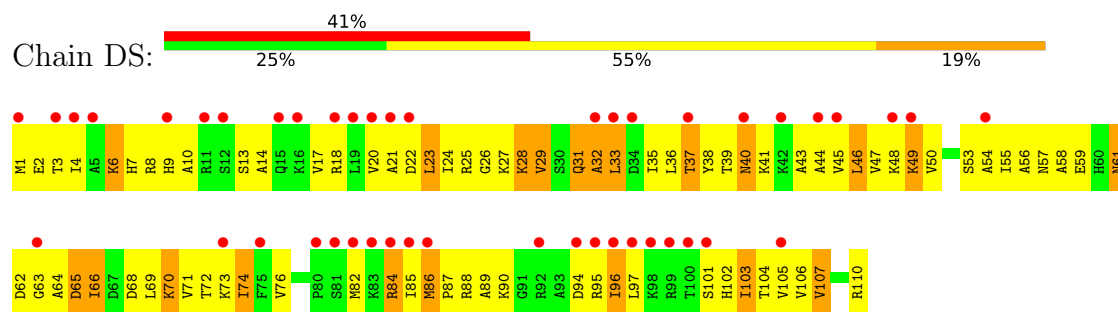
- Molecule 39: 50S ribosomal protein L21



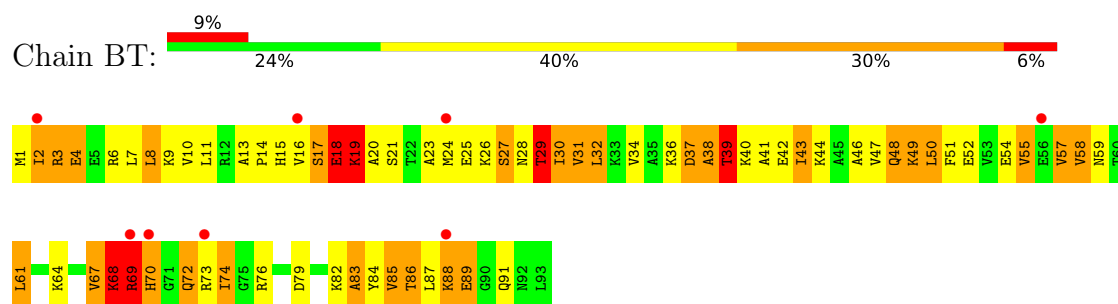
- Molecule 40: 50S ribosomal protein L22



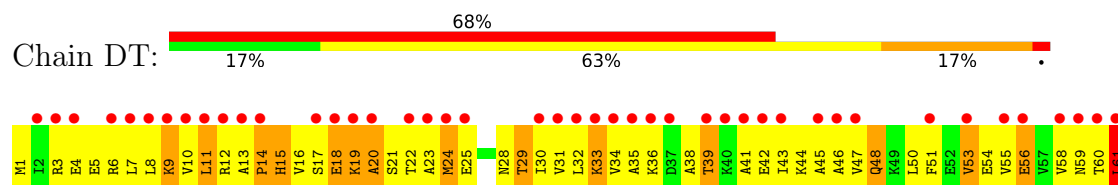
- Molecule 40: 50S ribosomal protein L22

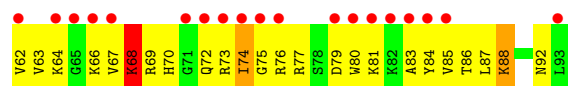


- Molecule 41: 50S ribosomal protein L23

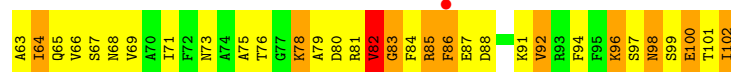
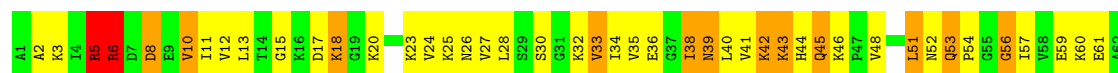


- Molecule 41: 50S ribosomal protein L23

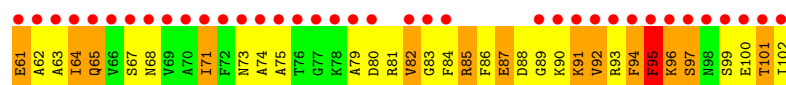
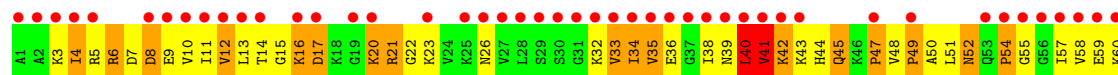
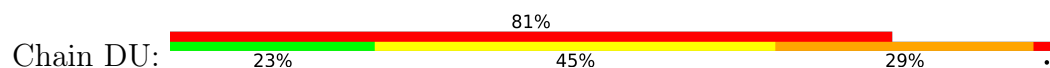




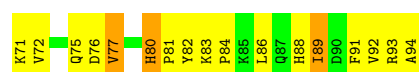
- Molecule 42: 50S ribosomal protein L24



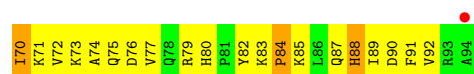
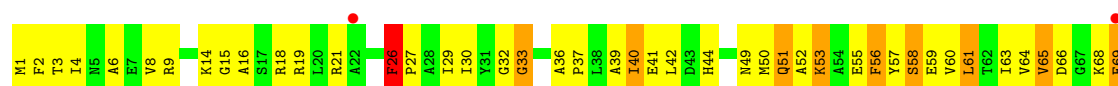
- Molecule 42: 50S ribosomal protein L24



- Molecule 43: 50S ribosomal protein L25

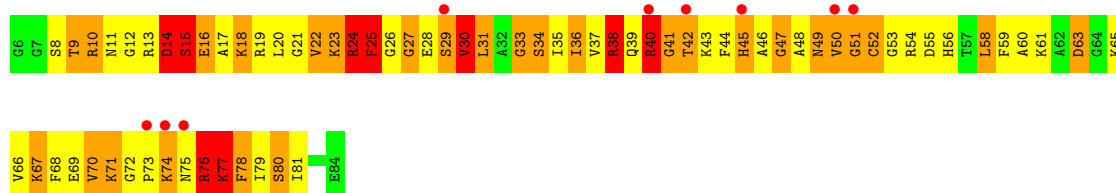


- Molecule 43: 50S ribosomal protein L25

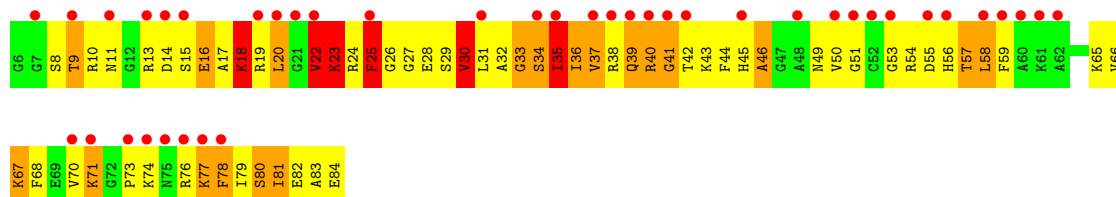
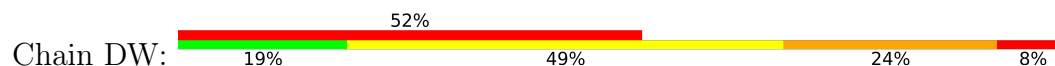


- Molecule 44: 50S ribosomal protein L27

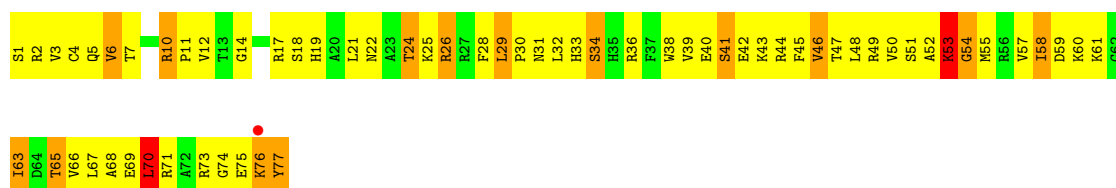




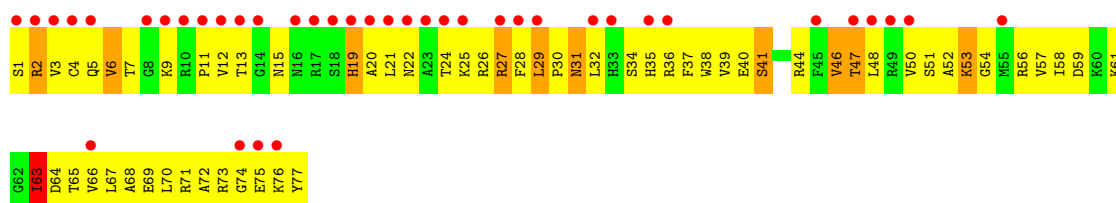
• Molecule 44: 50S ribosomal protein L27



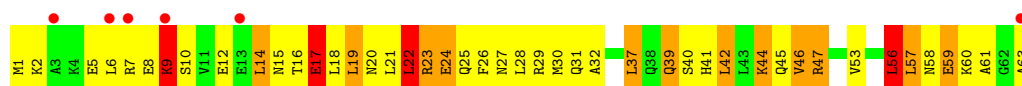
• Molecule 45: 50S ribosomal protein L28



• Molecule 45: 50S ribosomal protein L28

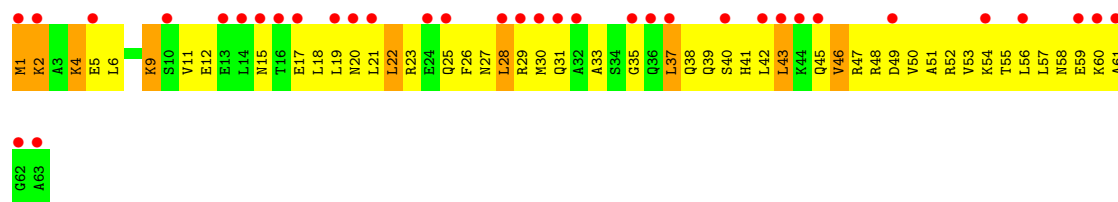


• Molecule 46: 50S ribosomal protein L29

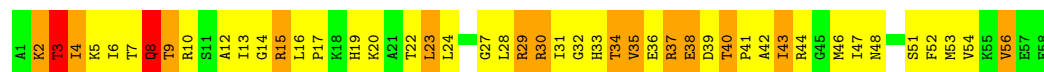


• Molecule 46: 50S ribosomal protein L29

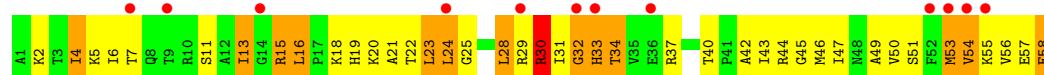




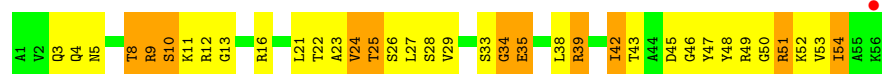
- Molecule 47: 50S ribosomal protein L30



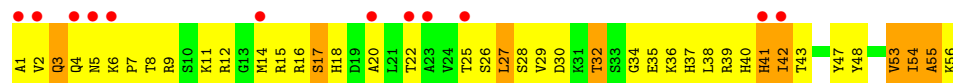
- Molecule 47: 50S ribosomal protein L30



- Molecule 48: 50S ribosomal protein L32



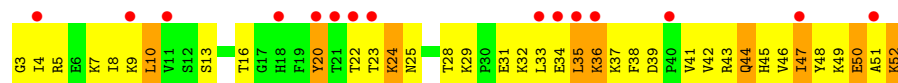
- Molecule 48: 50S ribosomal protein L32



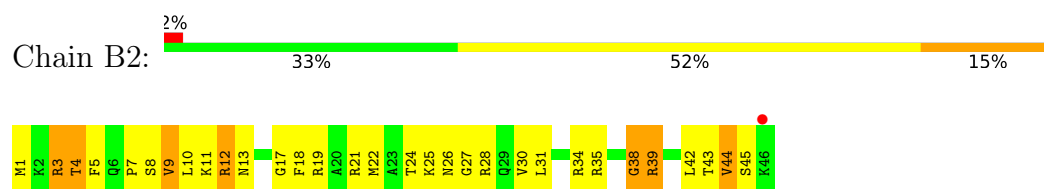
- Molecule 49: 50S ribosomal protein L33



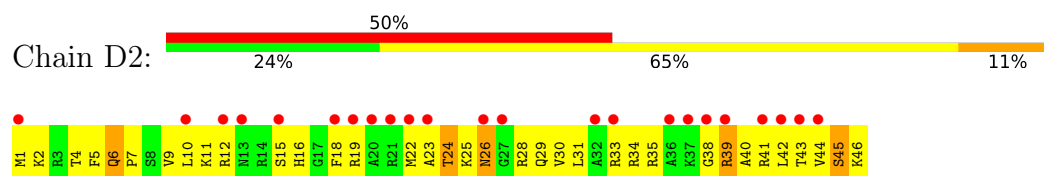
- Molecule 49: 50S ribosomal protein L33



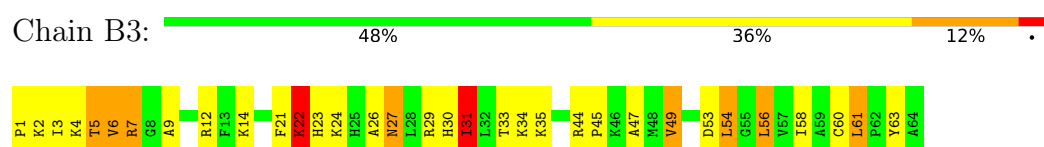
- Molecule 50: 50S ribosomal protein L34



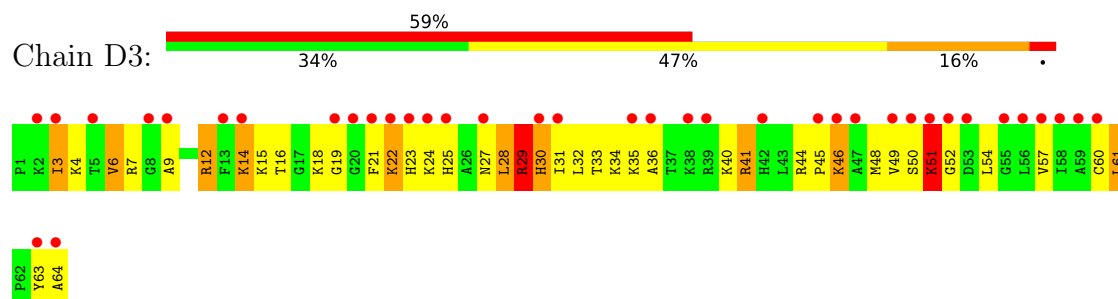
- Molecule 50: 50S ribosomal protein L34



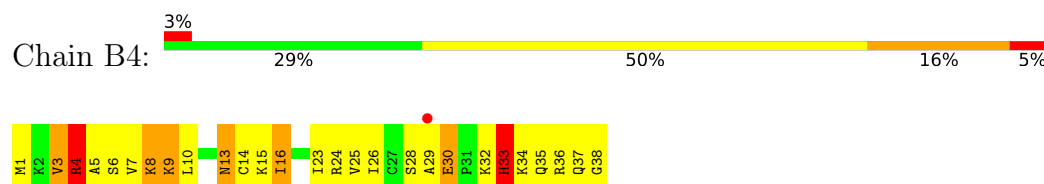
- Molecule 51: 50S ribosomal protein L35



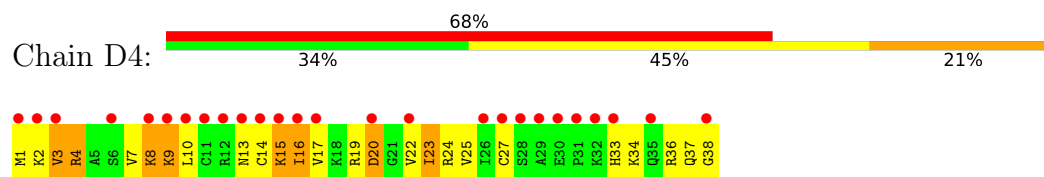
- Molecule 51: 50S ribosomal protein L35



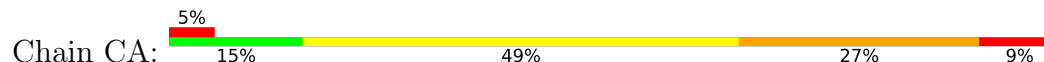
- Molecule 52: 50S ribosomal protein L36



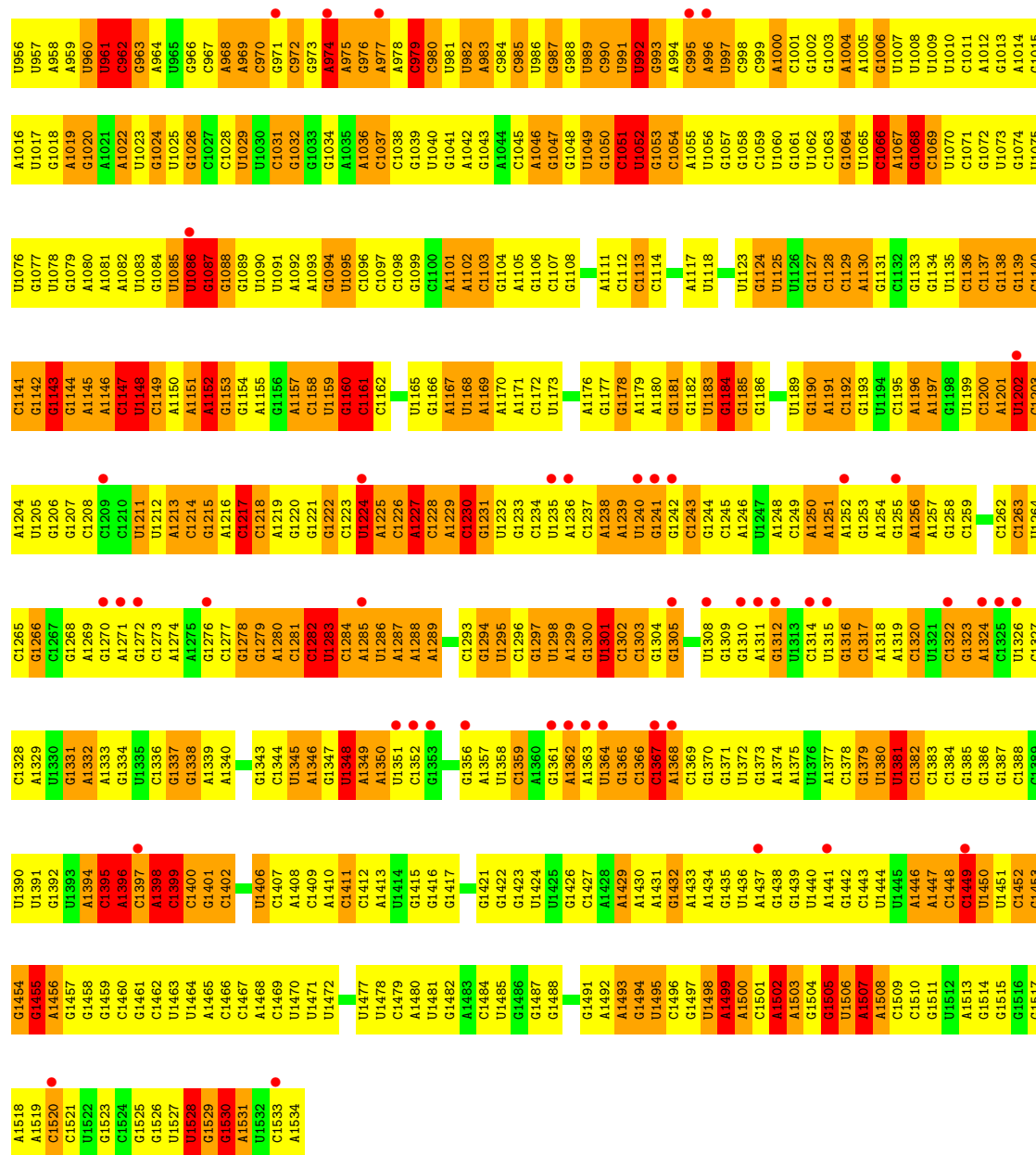
- Molecule 52: 50S ribosomal protein L36



- Molecule 53: 16S rRNA

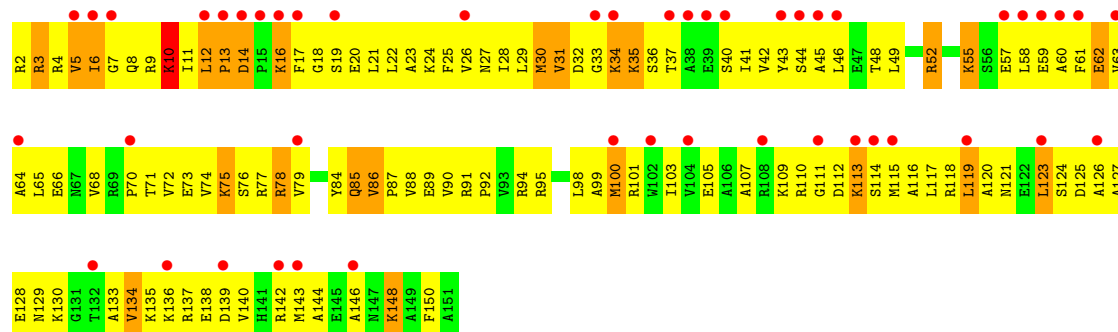


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A892	C826	G763	G703	A640	G570	U508	C443	G380	A316	A253	G191	A130	U70	G6
G893	U827	G764	A704	U641	U571	A509	G444	C381	U317	G254	A192	A131	A71	A7
G894	G765	G765	G705	U641	A572	A510	G445	A382	G318	G255	C193	A132	A72	A8
G895	G829	A766	A706	A642	A573	C511	G446	A383	G319	U256	C194	U133	C73	G9
G896			U707	G643	A574	U512		G384	A320	G257	A195	G134	A74	A10
G897			C708	G644	G575	C513	A448	C395	A321	G258	A196	C135	G75	
G898	U834	G770	U709	G645	C576	C514	A451	C386	G322	G259	A197	C136	G76	U13
G899	U835	G771	G710	G646	G577	G515	A452	U387		U261	G198	U137	A77	U14
A900	U836	G772	G711	C647	C578	A516	G453	A388	A325	A263	G201	U140	A78	A15
A901	U837	G773	A712	A648	A579	G517	G454	G389	G326	C264	G202	G141	A80	U17
G902	G838	G774	G713	A649	C580	C518	A455	U390	A327	A262	G203	G142	A81	C18
G903		G775	G714	A650	C581	C519	A456	G391	C328	G265	G204	A143	G82	U19
U904		G776	A715	G651	C582	A520	C457	C392	A329	G266	G205	G144	C83	A19
	U842	G777	A716	U652	A583	G521	U458	A393	G330	C267	A205	G145	U84	
A909	U843	G778	U717	G653	C584	C522	A459	G394	G331	U268	C206	G146	U85	G22
C910	G844		A718	G654	C585	A523	A460	C395	G332	G269	C207	G147	G86	
	A845	A781	C719	A655	C586	C527	A461	C396	U343	G270	C214	U154	U92	C25
A913	G846	A782	G720	U656	C587	C528	C462	A397	A344	G271	C215	A155	G94	A33
A914	G847	C783	G721	U657	G588	C529	U463	U398	G345	G278	U216	C156	G95	C34
A915	G848	G784	G722	U658	U589	G529	U464	A408	G346	A279	C217	C157	G96	C35
U916	G849	G785	U723	U659	C590	G530	A465	U409	G347	G280	U218	G158	G97	C36
G917		G786	G724		U591	U531	A466	G410	G348	U281	U219	G159	A98	U37
A918		A787	G725			A532	U467	A411	A349	G282	G220	A160	C99	G38
A919	U854	U788	C726	G664	A595	A533	A468	A412	G350	U283	C221	A161	G100	G39
U920	U855	U789	G727	A665	A596	U534	C469	G413	G351	C284	C222	A162	A101	C40
U921		A790	A728	G666	G597	A535		U407	G346	G278	U216	C156	G95	C34
G922		G791	A729	G667	U598	C536	U473	A408	G347	A279	C217	C157	G96	C35
A923		A792	G730	G668	C599	G537	G474	U409	G347	G280	U218	G158	G97	C36
C924		G793	G731	G669		C538	C475	G410	G348	U281	U219	G159	A98	U37
G925		A794	C732	G670	U603	A539	U476	A411	A349	G282	G220	A160	C99	G38
G926		C795	G733	G671	G604	G540	C477	A412	G350	U283	C221	A161	G100	G39
G927		G796	G734	G672	U605	G541	A478	G413	G351	C284	C222	A162	A101	C40
G928		C797	C735	A673	G606	G542	U480	A414	C352	C285	A223	C163	G102	G41
		U798	C736	G674	A607	U543	G481	A415	A353	C286	U224	C164	U103	G42
C931		G799	C737	A675	A608	C544	G482	G416	G354	U287		U165	G104	C43
C932		G800	C738	A676	A609	C545	A482	G417	C355	A288		U166	G105	A44
C933		U801	C739	U677	U510	A546	C483	C418	A356	G289		A167	G106	G45
G934		A802	U740		C611	A547	G484		G357	C290		C168	G107	G46
A935		G803	G741		C612	G548	U485	U421	U358		G230	C169	G108	C47
C936		U804	G742		C613	C549	U486	C422	G359	U296	U231	U170	A109	C48
A937		A743	A744		C614	C550	A487	G423	G360	G297	C233	A171	G110	
A938		A807	C745		G615	U551		G424	G361	A298	C234	U172	G111	A51
G939		C808	G746		G616	U552		G425	G362	G299	C235	U173	G112	C52
C940		G809	A746		G617	A553		U426	A363	G299	A236	A174	G113	C53
G941		C810	A747		C618	U554		U427	A364	A300	G237	C175	U114	C54
G942		G812	G748		G619	C556		G428	U365	G301	A238	C176	G115	A55
U943		U813	A749		G623	C557		U429	A366	U239	U239	G177	A116	U56
G944		A814	C750		C624	G558		A430	U367	A303	G240	C178	G117	G57
G945		A815	U751		U625	C559		A431	U368	U304	G241	A179	U118	C58
A946		C816	G752		A629	A560		A432	G369	G305	G242	U180	A119	A59
G947		C817	A753		U626	U561		G433	C370	A306	A243	U181	A120	A60
C948		U818	C754		A630	A499		A434	A371	C307	U244	A182	G61	G61
A949		G819	G755		C631	U562		U435	C372	C308	U245	C183	U62	U62
G950		A819	C756		A563	C501		A436	A373	A309	G246	G184	C63	C63
G951		U820	U757		C564	A502		U437	A374	G310	G247	U185	G64	G64
U952		G821	C758		U565	C503		U438	U375	C311	C248	C186	A65	A65
G953		U822	A759		G566	U504		U439	G376	C312	U249	G187	A66	A66
A954		C823	G760		G567	C504		U440	G377	A313	G250	C188	C67	C67
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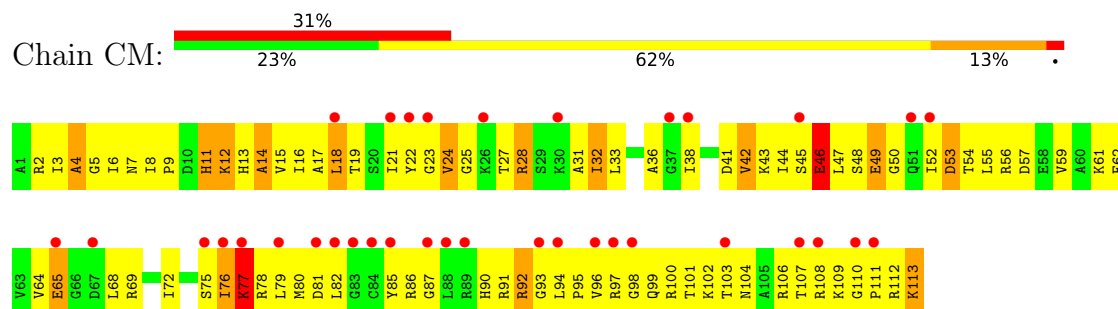


• Molecule 54: 30S ribosomal protein S7

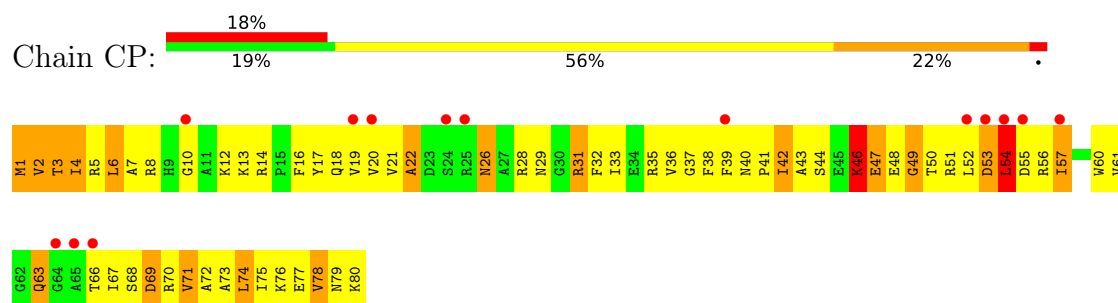
Chain CG: 20% 31% 63% 16%



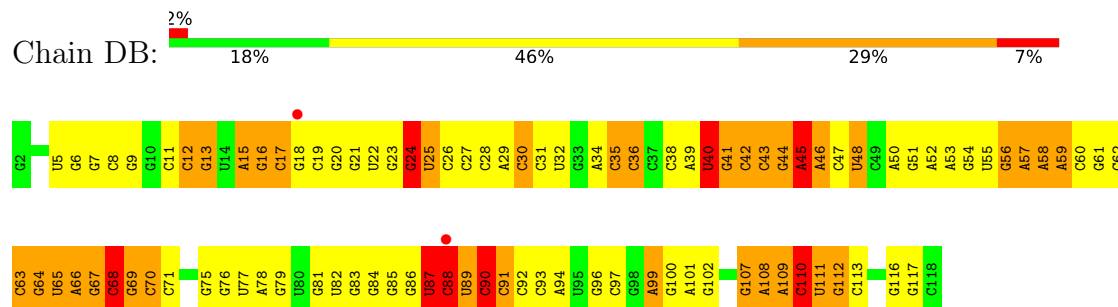
- Molecule 55: 30S ribosomal protein S13



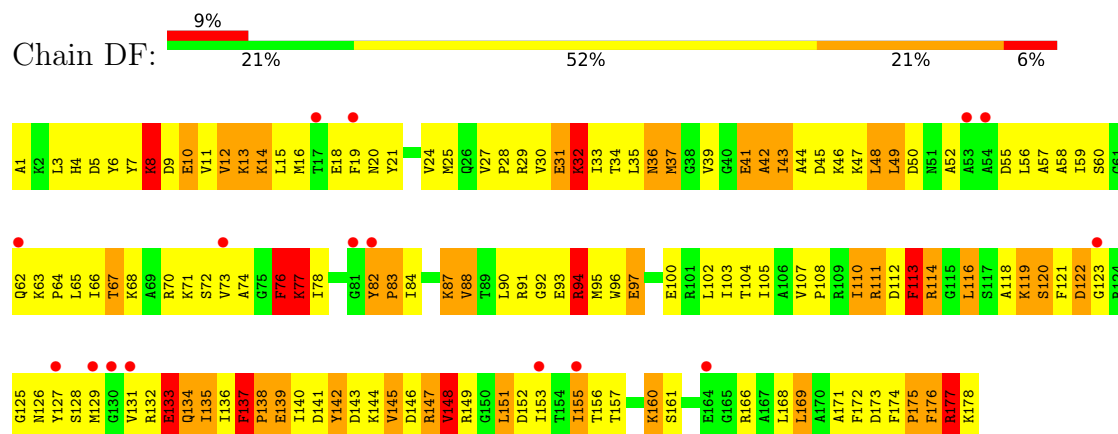
- Molecule 56: 30S ribosomal protein S16



- Molecule 57: 5S rRNA



- Molecule 58: 50S ribosomal protein L5



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	211.08Å 434.46Å 618.92Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	76.35 – 3.29 76.35 – 3.29	Depositor EDS
% Data completeness (in resolution range)	77.5 (76.35-3.29) 77.5 (76.35-3.29)	Depositor EDS
R_{merge}	0.12	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.65 (at 3.26Å)	Xtriage
Refinement program	PHENIX, PHENIX (phenix.refine)	Depositor
R, R_{free}	0.189 , 0.241 0.201 , 0.250	Depositor DCC
R_{free} test set	14080 reflections (2.01%)	wwPDB-VP
Wilson B-factor (Å ²)	66.6	Xtriage
Anisotropy	0.324	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.24 , 76.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.48$, $\langle L^2 \rangle = 0.31$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.93	EDS
Total number of atoms	284501	wwPDB-VP
Average B, all atoms (Å ²)	103.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.60% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality ⓘ

5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, CLY, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	AA	0.32	1/36834 (0.0%)	0.94	229/57462 (0.4%)
2	AB	0.29	0/1736	0.76	5/2338 (0.2%)
2	CB	0.29	0/1736	0.81	2/2338 (0.1%)
3	AC	0.33	0/1652	0.85	10/2225 (0.4%)
3	CC	0.30	0/1652	0.76	4/2225 (0.2%)
4	AD	0.36	0/1665	0.81	0/2227
4	CD	0.42	0/1665	0.85	3/2227 (0.1%)
5	AE	0.40	0/1119	0.87	4/1504 (0.3%)
5	CE	0.47	1/1119 (0.1%)	0.90	2/1504 (0.1%)
6	AF	0.37	0/836	0.76	0/1128
6	CF	0.33	0/836	0.80	1/1128 (0.1%)
7	AG	0.30	0/1196	0.81	3/1602 (0.2%)
8	AH	0.39	0/989	0.94	5/1326 (0.4%)
8	CH	0.36	0/989	0.84	0/1326
9	AI	0.29	0/1034	0.77	0/1375
9	CI	0.27	0/1034	0.73	0/1375
10	AJ	0.32	0/797	0.87	4/1077 (0.4%)
10	CJ	0.29	0/797	0.79	3/1077 (0.3%)
11	AK	0.35	0/893	0.93	4/1205 (0.3%)
11	CK	0.33	0/893	0.83	0/1205
12	AL	0.48	0/969	1.04	3/1300 (0.2%)
12	CL	0.37	0/969	0.87	2/1300 (0.2%)
13	AM	0.31	0/893	0.79	0/1193
14	AN	0.33	0/785	0.78	3/1043 (0.3%)
14	CN	0.26	0/780	0.75	0/1036
15	AO	0.36	0/722	0.69	0/964
15	CO	0.32	0/722	0.70	0/964
16	AP	0.41	0/659	0.85	0/884
17	AQ	0.41	0/658	0.86	0/881
17	CQ	0.35	0/658	0.82	2/881 (0.2%)
18	AR	0.36	0/463	0.78	0/621
18	CR	0.33	0/463	0.75	0/621

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
19	AS	0.28	0/653	0.78	0/877
19	CS	0.24	0/653	0.78	0/877
20	AT	0.39	0/671	0.81	2/888 (0.2%)
20	CT	0.33	0/671	0.90	2/888 (0.2%)
21	AU	0.30	0/431	0.84	1/570 (0.2%)
21	CU	0.36	0/431	0.88	0/570
22	BA	0.44	5/68626 (0.0%)	1.13	696/107056 (0.7%)
22	DA	0.30	1/68314 (0.0%)	0.94	404/106569 (0.4%)
23	BB	0.41	0/2828	1.09	24/4410 (0.5%)
24	BC	0.53	1/2122 (0.0%)	1.06	15/2852 (0.5%)
24	DC	0.37	0/2122	0.87	2/2852 (0.1%)
25	BD	0.65	0/1586	1.06	5/2134 (0.2%)
25	DD	0.34	0/1586	0.87	5/2134 (0.2%)
26	BE	0.55	0/1571	0.97	3/2113 (0.1%)
26	DE	0.31	0/1571	0.81	2/2113 (0.1%)
27	BF	0.39	0/1435	0.87	3/1926 (0.2%)
28	BG	0.46	0/1343	0.94	5/1816 (0.3%)
28	DG	0.28	0/1343	0.76	2/1816 (0.1%)
29	BH	0.35	0/1122	0.77	1/1515 (0.1%)
29	DH	0.34	0/1122	0.83	3/1515 (0.2%)
30	BI	0.35	0/1046	0.88	4/1410 (0.3%)
30	DI	0.29	0/1046	0.81	0/1410
31	BJ	0.72	1/1152 (0.1%)	1.27	12/1551 (0.8%)
31	DJ	0.34	0/1152	0.85	0/1551
32	BK	0.63	0/948	0.98	3/1268 (0.2%)
32	DK	0.36	0/948	0.84	2/1268 (0.2%)
33	BL	0.57	0/1054	1.04	5/1403 (0.4%)
33	DL	0.31	0/1054	0.78	0/1403
34	BM	0.60	0/1093	1.11	8/1460 (0.5%)
34	DM	0.34	0/1093	0.87	4/1460 (0.3%)
35	BN	0.57	0/974	1.00	3/1301 (0.2%)
35	DN	0.34	0/974	0.87	2/1301 (0.2%)
36	BO	0.53	0/902	0.92	1/1209 (0.1%)
36	DO	0.28	0/902	0.73	0/1209
37	BP	0.58	0/929	0.99	3/1242 (0.2%)
37	DP	0.33	0/929	0.81	5/1242 (0.4%)
38	BQ	0.71	0/960	1.00	3/1278 (0.2%)
38	DQ	0.31	0/960	0.74	1/1278 (0.1%)
39	BR	0.63	0/829	1.03	4/1107 (0.4%)
39	DR	0.31	0/829	0.73	1/1107 (0.1%)
40	BS	0.69	0/864	1.02	2/1156 (0.2%)
40	DS	0.35	0/864	0.77	0/1156
41	BT	0.57	0/745	0.97	3/994 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
41	DT	0.28	0/745	0.72	0/994
42	BU	0.52	0/788	1.05	8/1051 (0.8%)
42	DU	0.28	0/788	0.80	1/1051 (0.1%)
43	BV	0.51	0/766	0.95	5/1025 (0.5%)
43	DV	0.30	0/766	0.79	2/1025 (0.2%)
44	BW	0.66	0/603	1.02	4/797 (0.5%)
44	DW	0.29	0/603	0.71	0/797
45	BX	0.51	0/635	0.96	1/848 (0.1%)
45	DX	0.34	0/635	0.90	2/848 (0.2%)
46	BY	0.45	0/510	0.88	3/677 (0.4%)
46	DY	0.25	0/510	0.72	0/677
47	BZ	0.67	0/453	1.09	2/605 (0.3%)
47	DZ	0.33	0/453	0.81	1/605 (0.2%)
48	B0	0.59	0/450	0.94	1/599 (0.2%)
48	D0	0.30	0/450	0.74	0/599
49	B1	0.42	0/417	0.93	4/554 (0.7%)
49	D1	0.31	0/417	0.77	0/554
50	B2	0.60	0/380	1.00	3/498 (0.6%)
50	D2	0.33	0/380	0.96	2/498 (0.4%)
51	B3	0.57	0/513	0.99	2/676 (0.3%)
51	D3	0.32	0/513	0.81	0/676
52	B4	0.69	0/303	1.22	4/397 (1.0%)
52	D4	0.49	0/303	0.69	0/397
53	CA	0.31	1/36762 (0.0%)	0.90	173/57350 (0.3%)
54	CG	0.27	0/1188	0.84	4/1591 (0.3%)
55	CM	0.25	0/885	0.66	0/1181
56	CP	0.36	0/649	0.86	3/870 (0.3%)
57	DB	0.31	1/2803 (0.0%)	0.81	10/4371 (0.2%)
58	DF	0.27	0/1444	0.79	6/1937 (0.3%)
All	All	0.38	12/306773 (0.0%)	0.97	1771/458565 (0.4%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
25	BD	0	1
31	BJ	0	1
35	BN	0	1
58	DF	0	1
All	All	0	4

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
53	CA	1396	A	O3'-P	-13.06	1.41	1.61
1	AA	1047	G	O3'-P	-10.83	1.45	1.61
22	BA	1905	C	O3'-P	-9.77	1.46	1.61
5	CE	73	VAL	C-N	8.83	1.46	1.33
22	BA	2197	U	O3'-P	-7.99	1.49	1.61
22	BA	876	C	O3'-P	-7.63	1.49	1.61
57	DB	107	G	O3'-P	-6.72	1.51	1.61
24	BC	141	HIS	CA-C	-6.02	1.50	1.53
22	BA	2092	U	O3'-P	-5.95	1.52	1.61
31	BJ	40	HIS	CG-ND1	-5.82	1.31	1.38
22	DA	1929	G	O3'-P	5.08	1.68	1.61
22	BA	1038	G	O3'-P	5.00	1.68	1.61

All (1771) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	2586	U	N1-C1'-C2'	-12.98	92.53	112.00
1	AA	1047	G	P-O3'-C3'	-12.81	100.98	120.20
22	BA	627	A	P-O3'-C3'	12.41	138.81	120.20
22	BA	531	C	P-O3'-C3'	12.38	138.77	120.20
22	BA	2424	C	P-O3'-C3'	-12.23	101.86	120.20
22	BA	1185	G	P-O3'-C3'	-12.16	101.97	120.20
22	BA	2068	U	N1-C1'-C2'	-11.80	94.30	112.00
22	DA	2283	C	N1-C1'-C2'	-11.65	94.52	112.00
22	BA	2752	C	N1-C1'-C2'	-11.56	94.67	112.00
22	BA	449	A	P-O3'-C3'	-11.41	103.08	120.20
22	BA	805	G	P-O3'-C3'	11.37	137.26	120.20
22	BA	687	C	N1-C1'-C2'	-11.27	95.10	112.00
22	BA	1330	C	N1-C1'-C2'	-11.26	95.12	112.00
22	BA	1635	A	P-O3'-C3'	-11.22	103.37	120.20
22	BA	1461	C	N1-C1'-C2'	-11.15	95.27	112.00
22	BA	2800	A	P-O3'-C3'	11.10	136.85	120.20
22	DA	2197	U	P-O3'-C3'	11.10	136.85	120.20
22	BA	2283	C	N1-C1'-C2'	-11.06	95.40	112.00
22	DA	2137	U	N1-C1'-C2'	-11.01	95.49	112.00
22	BA	49	A	P-O3'-C3'	10.87	136.51	120.20
22	BA	728	G	P-O3'-C3'	10.85	136.48	120.20
22	DA	2504	U	N1-C1'-C2'	-10.82	95.77	112.00
22	BA	302	C	N1-C1'-C2'	-10.80	95.80	112.00
26	BE	39	ALA	N-CA-C	-10.74	99.75	113.72
22	DA	946	C	N1-C1'-C2'	-10.73	95.90	112.00
22	BA	92	U	N1-C1'-C2'	-10.70	95.95	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CA	132	C	N1-C1'-C2'	-10.60	96.10	112.00
22	BA	704	G	P-O3'-C3'	10.56	136.05	120.20
22	BA	1603	A	P-O3'-C3'	-10.55	104.38	120.20
22	BA	227	A	P-O3'-C3'	10.55	136.02	120.20
22	DA	2646	C	N1-C1'-C2'	-10.53	96.20	112.00
23	BB	90	C	N1-C1'-C2'	-10.47	96.30	112.00
22	BA	766	U	N1-C1'-C2'	-10.38	96.43	112.00
22	BA	1815	A	P-O3'-C3'	10.37	135.76	120.20
22	DA	740	C	N1-C1'-C2'	-10.37	96.45	112.00
53	CA	328	C	P-O3'-C3'	10.36	135.74	120.20
22	BA	1993	U	N1-C1'-C2'	-10.33	96.50	112.00
1	AA	1202	U	N1-C1'-C2'	-10.24	96.64	112.00
22	BA	197	A	P-O5'-C5'	-10.14	105.69	120.90
22	BA	2800	A	O3'-P-O5'	-10.11	88.84	104.00
22	BA	1151	A	P-O3'-C3'	-10.09	105.07	120.20
22	BA	2284	A	P-O3'-C3'	-10.08	105.08	120.20
22	BA	2691	C	N1-C1'-C2'	-10.07	96.90	112.00
29	DH	48	GLU	O-C-N	10.06	132.78	122.12
24	BC	141	HIS	CB-CA-C	-10.05	102.60	117.07
22	BA	614	A	P-O3'-C3'	10.04	135.25	120.20
25	BD	151	THR	CA-C-N	-9.99	108.29	119.28
25	BD	151	THR	C-N-CA	-9.99	108.29	119.28
23	BB	57	A	P-O3'-C3'	-9.97	105.24	120.20
22	BA	729	G	P-O5'-C5'	-9.85	106.13	120.90
22	BA	556	A	P-O5'-C5'	-9.84	106.14	120.90
53	CA	520	A	P-O3'-C3'	-9.81	105.49	120.20
22	DA	2095	A	P-O3'-C3'	-9.78	105.53	120.20
22	DA	304	U	N1-C1'-C2'	-9.78	97.33	112.00
22	DA	2137	U	P-O3'-C3'	-9.78	105.54	120.20
22	DA	672	C	N1-C1'-C2'	-9.72	97.42	112.00
22	BA	669	G	P-O3'-C3'	9.69	134.73	120.20
22	DA	1972	G	P-O3'-C3'	-9.68	105.68	120.20
22	BA	1023	U	N1-C1'-C2'	-9.63	97.56	112.00
22	BA	2848	G	P-O3'-C3'	9.63	134.64	120.20
22	BA	1758	U	P-O3'-C3'	9.59	134.59	120.20
22	DA	1782	U	P-O3'-C3'	-9.57	105.84	120.20
22	DA	1675	C	N1-C1'-C2'	-9.56	97.67	112.00
22	BA	229	C	N1-C1'-C2'	-9.51	97.73	112.00
22	BA	2197	U	P-O3'-C3'	9.49	134.43	120.20
22	BA	2727	A	P-O3'-C3'	-9.44	106.03	120.20
22	BA	2287	A	P-O3'-C3'	9.43	134.34	120.20
53	CA	1230	C	N1-C1'-C2'	-9.41	97.88	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	1822	C	P-O3'-C3'	-9.40	106.11	120.20
22	BA	1272	A	P-O3'-C3'	9.39	134.28	120.20
22	BA	1653	G	P-O3'-C3'	9.36	134.25	120.20
22	DA	2880	C	N1-C1'-C2'	-9.37	97.95	112.00
22	BA	728	G	O3'-P-O5'	-9.35	89.97	104.00
22	BA	2801	G	P-O5'-C5'	-9.32	106.93	120.90
1	AA	821	G	P-O3'-C3'	-9.26	106.31	120.20
53	CA	1396	A	P-O3'-C3'	9.26	134.09	120.20
53	CA	66	A	P-O3'-C3'	-9.25	106.33	120.20
22	BA	2347	C	N1-C1'-C2'	-9.24	98.15	112.00
22	BA	250	G	P-O3'-C3'	-9.23	106.35	120.20
22	BA	858	G	P-O3'-C3'	9.23	134.04	120.20
22	BA	1112	G	P-O3'-C3'	-9.23	106.36	120.20
22	BA	1942	C	P-O5'-C5'	-9.21	107.09	120.90
22	BA	2613	U	P-O3'-C3'	9.18	133.96	120.20
31	BJ	7	LYS	CA-C-N	9.16	131.28	119.84
31	BJ	7	LYS	C-N-CA	9.16	131.28	119.84
22	BA	2137	U	N1-C1'-C2'	-9.15	98.28	112.00
22	DA	2586	U	P-O3'-C3'	-9.15	106.48	120.20
22	BA	196	A	P-O3'-C3'	9.14	133.91	120.20
1	AA	52	C	N1-C1'-C2'	-9.13	98.31	112.00
53	CA	352	C	N1-C1'-C2'	-9.12	98.32	112.00
22	DA	1932	A	P-O3'-C3'	-9.12	106.52	120.20
53	CA	1086	U	N1-C1'-C2'	-9.12	98.33	112.00
22	BA	2266	A	P-O3'-C3'	9.10	133.85	120.20
22	DA	992	C	N1-C1'-C2'	-9.10	98.35	112.00
53	CA	486	U	P-O3'-C3'	-9.09	106.56	120.20
1	AA	32	A	P-O3'-C3'	-9.08	106.58	120.20
22	DA	673	C	N1-C1'-C2'	-9.06	98.41	112.00
57	DB	110	C	N1-C1'-C2'	-9.05	98.42	112.00
22	BA	1111	A	P-O3'-C3'	9.05	133.78	120.20
22	DA	1931	U	P-O3'-C3'	-9.03	106.65	120.20
1	AA	972	C	N1-C1'-C2'	-9.02	98.47	112.00
22	BA	783	A	P-O3'-C3'	-9.02	106.68	120.20
22	BA	2021	C	O3'-P-O5'	-9.02	90.47	104.00
22	DA	2876	G	P-O3'-C3'	-9.02	106.68	120.20
22	DA	2881	U	N1-C1'-C2'	-9.01	98.48	112.00
22	DA	87	U	N1-C1'-C2'	-9.01	98.49	112.00
1	AA	1398	A	P-O3'-C3'	-8.99	106.71	120.20
22	DA	2339	C	N1-C1'-C2'	-8.98	98.52	112.00
22	DA	2226	C	N1-C1'-C2'	-8.96	98.57	112.00
22	DA	1997	C	N1-C1'-C2'	-8.95	98.58	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CA	891	U	N1-C1'-C2'	-8.94	98.59	112.00
22	BA	1859	U	N1-C1'-C2'	-8.92	98.62	112.00
53	CA	14	U	N1-C1'-C2'	-8.91	98.63	112.00
22	DA	2037	A	P-O3'-C3'	-8.88	106.88	120.20
22	BA	2613	U	O3'-P-O5'	-8.86	90.71	104.00
22	BA	2497	A	P-O3'-C3'	8.86	133.49	120.20
22	DA	1013	C	N1-C1'-C2'	-8.86	98.72	112.00
22	DA	860	U	N1-C1'-C2'	-8.85	98.73	112.00
22	BA	2630	G	P-O3'-C3'	-8.84	106.94	120.20
22	DA	961	C	P-O3'-C3'	8.83	133.45	120.20
22	DA	235	U	N1-C1'-C2'	-8.83	98.76	112.00
22	DA	1023	U	N1-C1'-C2'	-8.83	98.76	112.00
22	DA	1682	G	P-O3'-C3'	-8.82	106.97	120.20
22	BA	740	C	N1-C1'-C2'	-8.82	98.77	112.00
47	BZ	8	GLN	N-CA-C	8.81	120.96	111.36
22	DA	1782	U	N1-C1'-C2'	-8.80	98.80	112.00
22	DA	2440	C	N1-C1'-C2'	-8.79	98.81	112.00
22	BA	2729	G	P-O3'-C3'	-8.78	107.03	120.20
22	BA	1997	C	N1-C1'-C2'	-8.78	98.83	112.00
22	DA	2615	U	N1-C1'-C2'	-8.78	98.83	112.00
22	BA	2712	C	P-O3'-C3'	8.77	133.35	120.20
1	AA	577	G	P-O3'-C3'	-8.76	107.06	120.20
1	AA	51	A	P-O3'-C3'	8.75	133.32	120.20
22	BA	373	U	N1-C1'-C2'	-8.74	98.89	112.00
22	BA	390	U	P-O3'-C3'	8.73	133.30	120.20
22	BA	2517	C	P-O3'-C3'	8.72	133.28	120.20
22	BA	962	G	P-O3'-C3'	-8.72	107.13	120.20
22	DA	61	C	N1-C1'-C2'	-8.71	98.94	112.00
22	BA	739	A	P-O3'-C3'	8.70	133.25	120.20
22	DA	991	C	N1-C1'-C2'	-8.70	98.95	112.00
22	BA	1602	U	P-O3'-C3'	8.69	133.24	120.20
22	BA	1816	C	P-O3'-C3'	-8.68	107.17	120.20
53	CA	248	C	N1-C1'-C2'	-8.66	99.01	112.00
1	AA	1528	U	P-O3'-C3'	8.64	133.16	120.20
22	BA	1654	A	N9-C1'-C2'	-8.64	99.04	112.00
53	CA	245	U	N1-C1'-C2'	-8.64	99.04	112.00
34	BM	68	PHE	CA-C-N	8.64	130.64	119.84
34	BM	68	PHE	C-N-CA	8.64	130.64	119.84
22	DA	2611	C	N1-C1'-C2'	-8.60	99.11	112.00
22	DA	933	A	P-O3'-C3'	-8.58	107.34	120.20
22	BA	1340	U	O3'-P-O5'	-8.57	91.15	104.00
22	BA	1675	C	N1-C1'-C2'	-8.56	99.16	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1499	C	N1-C1'-C2'	-8.55	99.17	112.00
22	BA	1997	C	P-O3'-C3'	-8.55	107.37	120.20
22	BA	435	C	N1-C1'-C2'	-8.54	99.19	112.00
39	BR	9	GLY	N-CA-C	-8.54	102.69	115.32
22	BA	2035	G	P-O3'-C3'	8.53	132.99	120.20
22	DA	765	C	N1-C1'-C2'	-8.53	99.21	112.00
31	BJ	27	ARG	N-CA-C	-8.51	102.34	112.89
1	AA	512	U	N1-C1'-C2'	-8.48	99.28	112.00
53	CA	512	U	N1-C1'-C2'	-8.48	99.29	112.00
53	CA	252	U	N1-C1'-C2'	-8.47	99.30	112.00
22	DA	1064	C	N1-C1'-C2'	-8.40	99.41	112.00
22	DA	2691	C	N1-C1'-C2'	-8.38	99.43	112.00
22	BA	475	C	N1-C1'-C2'	-8.37	99.45	112.00
22	DA	234	U	N1-C1'-C2'	-8.36	99.45	112.00
22	DA	2520	C	N1-C1'-C2'	-8.36	99.46	112.00
50	D2	6	GLN	CA-C-N	8.36	128.43	119.90
50	D2	6	GLN	C-N-CA	8.36	128.43	119.90
22	BA	2581	G	P-O3'-C3'	8.36	132.74	120.20
53	CA	92	U	N1-C1'-C2'	-8.34	99.50	112.00
22	DA	1418	G	P-O3'-C3'	-8.34	107.70	120.20
22	DA	336	C	N1-C1'-C2'	-8.33	99.50	112.00
22	BA	506	G	P-O3'-C3'	8.33	132.69	120.20
22	BA	2023	C	N1-C1'-C2'	-8.32	99.52	112.00
22	BA	2809	A	P-O5'-C5'	-8.31	108.43	120.90
22	BA	14	A	P-O3'-C3'	-8.31	107.73	120.20
22	BA	2459	A	P-O3'-C3'	-8.29	107.77	120.20
53	CA	96	U	N1-C1'-C2'	-8.29	99.57	112.00
1	AA	267	C	N1-C1'-C2'	-8.28	99.58	112.00
22	BA	613	A	P-O3'-C3'	8.28	132.62	120.20
22	DA	2348	U	N1-C1'-C2'	-8.28	99.59	112.00
57	DB	90	C	N1-C1'-C2'	-8.28	99.58	112.00
53	CA	1068	G	P-O3'-C3'	-8.27	107.79	120.20
22	DA	2283	C	P-O3'-C3'	-8.27	107.79	120.20
22	BA	807	U	P-O5'-C5'	-8.26	108.51	120.90
24	BC	105	ALA	CA-C-N	8.25	128.31	119.89
24	BC	105	ALA	C-N-CA	8.25	128.31	119.89
53	CA	509	A	P-O3'-C3'	-8.25	107.82	120.20
22	DA	1648	U	N1-C1'-C2'	-8.25	99.62	112.00
22	DA	1683	U	N1-C1'-C2'	-8.23	99.65	112.00
22	BA	1626	A	P-O3'-C3'	8.23	132.55	120.20
22	DA	250	G	P-O3'-C3'	-8.23	107.85	120.20
1	AA	969	A	P-O3'-C3'	-8.22	107.86	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	14	U	P-O3'-C3'	-8.21	107.89	120.20
1	AA	1162	C	N1-C1'-C2'	-8.19	99.71	112.00
22	BA	1967	C	N1-C1'-C2'	-8.20	99.71	112.00
22	BA	1427	A	P-O3'-C3'	8.19	132.48	120.20
22	BA	2510	C	P-O5'-C5'	-8.17	108.65	120.90
22	BA	2312	U	N1-C1'-C2'	-8.16	99.76	112.00
22	BA	2504	U	N1-C1'-C2'	-8.16	99.77	112.00
3	AC	107	LYS	CA-C-N	8.15	127.73	118.85
3	AC	107	LYS	C-N-CA	8.15	127.73	118.85
22	BA	2520	C	P-O3'-C3'	-8.15	107.97	120.20
22	BA	1681	G	P-O3'-C3'	8.15	132.42	120.20
22	DA	2616	C	N1-C1'-C2'	-8.14	99.79	112.00
1	AA	66	A	P-O3'-C3'	-8.12	108.02	120.20
22	DA	859	G	P-O3'-C3'	8.12	132.38	120.20
27	BF	174	PHE	CA-C-N	8.11	129.98	119.84
27	BF	174	PHE	C-N-CA	8.11	129.98	119.84
53	CA	577	G	P-O3'-C3'	-8.11	108.03	120.20
22	BA	1956	U	N1-C1'-C2'	-8.11	99.84	112.00
22	BA	1021	A	P-O3'-C3'	-8.10	108.06	120.20
22	BA	200	U	N1-C1'-C2'	-8.09	99.86	112.00
22	BA	1965	C	N1-C1'-C2'	-8.09	99.86	112.00
22	DA	2492	U	N1-C1'-C2'	-8.09	99.86	112.00
22	DA	2068	U	N1-C1'-C2'	-8.09	99.87	112.00
22	DA	164	C	N1-C1'-C2'	-8.09	99.87	112.00
22	BA	2894	G	P-O3'-C3'	-8.07	108.09	120.20
22	BA	301	G	P-O3'-C3'	8.07	132.30	120.20
22	BA	2036	C	N1-C1'-C2'	-8.06	99.91	112.00
22	BA	1045	C	P-O3'-C3'	8.06	132.29	120.20
22	BA	249	C	N1-C1'-C2'	8.06	126.08	114.00
22	DA	1417	C	N1-C1'-C2'	-8.06	99.92	112.00
22	BA	1009	A	P-O3'-C3'	-8.04	108.13	120.20
1	AA	486	U	N1-C1'-C2'	-8.03	99.95	112.00
1	AA	352	C	N1-C1'-C2'	-8.03	99.96	112.00
22	DA	1276	A	P-O3'-C3'	-8.03	108.16	120.20
22	BA	2645	G	P-O3'-C3'	8.02	132.24	120.20
22	BA	1417	C	N1-C1'-C2'	-8.02	99.97	112.00
22	BA	2611	C	P-O3'-C3'	-8.02	108.18	120.20
1	AA	1336	C	P-O3'-C3'	8.01	132.22	120.20
1	AA	1152	A	P-O3'-C3'	-8.01	108.19	120.20
22	BA	1524	G	P-O3'-C3'	-8.00	108.20	120.20
22	BA	2440	C	N1-C1'-C2'	-7.99	100.01	112.00
22	BA	61	C	N1-C1'-C2'	-7.99	100.01	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	865	C	P-O3'-C3'	7.98	132.17	120.20
53	CA	821	G	P-O3'-C3'	-7.97	108.25	120.20
22	DA	1249	U	N1-C1'-C2'	-7.97	100.05	112.00
22	BA	2215	C	P-O3'-C3'	-7.96	108.27	120.20
56	CP	14	ARG	CA-C-N	7.96	127.91	120.03
56	CP	14	ARG	C-N-CA	7.96	127.91	120.03
22	BA	1249	U	N1-C1'-C2'	-7.94	100.09	112.00
1	AA	9	G	P-O3'-C3'	-7.93	108.30	120.20
22	DA	2063	C	N1-C1'-C2'	-7.93	100.10	112.00
22	DA	576	U	N1-C1'-C2'	-7.93	100.10	112.00
22	BA	481	G	P-O3'-C3'	7.93	132.09	120.20
22	BA	2498	C	N1-C1'-C2'	-7.93	100.11	112.00
53	CA	331	G	P-O3'-C3'	-7.89	108.36	120.20
1	AA	512	U	P-O3'-C3'	-7.89	108.37	120.20
22	BA	2319	G	P-O3'-C3'	7.88	132.02	120.20
1	AA	268	U	N1-C1'-C2'	-7.88	100.18	112.00
22	BA	2431	U	N1-C1'-C2'	-7.88	100.19	112.00
53	CA	1217	C	N1-C1'-C2'	-7.88	100.19	112.00
22	BA	1682	G	P-O3'-C3'	-7.88	108.39	120.20
24	BC	141	HIS	CA-C-O	7.88	122.51	117.94
22	BA	726	G	P-O3'-C3'	7.86	131.99	120.20
22	BA	1782	U	N1-C1'-C2'	-7.86	100.21	112.00
22	BA	741	U	P-O5'-C5'	-7.86	109.11	120.90
22	BA	1213	A	P-O5'-C5'	-7.85	109.12	120.90
1	AA	1399	C	P-O3'-C3'	7.84	131.96	120.20
22	DA	991	C	P-O3'-C3'	-7.83	108.45	120.20
22	BA	1013	C	N1-C1'-C2'	-7.83	100.26	112.00
22	BA	2072	C	P-O3'-C3'	-7.80	108.50	120.20
22	BA	1333	G	P-O5'-C5'	-7.80	109.20	120.90
34	BM	71	LYS	CA-C-N	7.80	129.59	119.84
34	BM	71	LYS	C-N-CA	7.80	129.59	119.84
53	CA	643	C	N1-C1'-C2'	-7.79	100.31	112.00
22	BA	2656	U	P-O3'-C3'	-7.79	108.51	120.20
1	AA	1432	G	P-O3'-C3'	7.78	131.87	120.20
53	CA	1528	U	P-O3'-C3'	7.77	131.86	120.20
22	BA	2500	U	O4'-C1'-N1	-7.76	96.85	108.50
22	BA	396	G	P-O3'-C3'	-7.75	108.57	120.20
22	DA	1291	C	N1-C1'-C2'	-7.73	100.40	112.00
22	BA	1555	G	P-O3'-C3'	-7.73	108.61	120.20
53	CA	718	A	P-O3'-C3'	-7.73	108.61	120.20
53	CA	816	A	P-O3'-C3'	-7.73	108.61	120.20
22	BA	2836	U	N1-C1'-C2'	-7.72	100.41	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	831	G	P-O3'-C3'	-7.71	108.64	120.20
22	BA	2214	C	N1-C1'-C2'	-7.71	100.44	112.00
22	BA	528	A	P-O3'-C3'	-7.70	108.65	120.20
1	AA	1203	C	N1-C1'-C2'	-7.70	100.46	112.00
22	BA	915	C	N1-C1'-C2'	-7.68	100.48	112.00
22	BA	1619	G	P-O3'-C3'	-7.67	108.69	120.20
22	DA	206	U	N1-C1'-C2'	-7.67	100.49	112.00
53	CA	428	G	P-O3'-C3'	7.67	131.71	120.20
1	AA	513	C	N1-C1'-C2'	-7.66	100.51	112.00
22	DA	86	G	P-O3'-C3'	-7.66	108.71	120.20
22	BA	790	U	P-O3'-C3'	-7.65	108.73	120.20
22	BA	1971	U	P-O3'-C3'	-7.65	108.73	120.20
1	AA	13	U	P-O3'-C3'	7.65	131.67	120.20
22	DA	224	U	N1-C1'-C2'	-7.64	100.53	112.00
23	BB	44	G	P-O3'-C3'	7.63	131.65	120.20
22	DA	2249	U	P-O3'-C3'	7.63	131.65	120.20
22	BA	2259	U	P-O5'-C5'	-7.63	109.45	120.90
22	BA	421	C	P-O3'-C3'	7.62	131.63	120.20
22	DA	2645	G	P-O3'-C3'	7.62	131.63	120.20
22	DA	2214	C	N1-C1'-C2'	-7.61	100.58	112.00
1	AA	1224	U	P-O3'-C3'	7.60	131.60	120.20
1	AA	330	C	N1-C1'-C2'	-7.60	100.61	112.00
22	BA	784	G	P-O3'-C3'	7.60	131.59	120.20
22	BA	2335	A	P-O3'-C3'	-7.59	108.81	120.20
1	AA	315	A	P-O3'-C3'	7.58	131.58	120.20
22	BA	802	A	P-O3'-C3'	-7.58	108.83	120.20
54	CG	86	VAL	CA-C-N	7.58	127.59	119.78
54	CG	86	VAL	C-N-CA	7.58	127.59	119.78
49	B1	39	ASP	CA-C-N	7.57	127.21	119.56
49	B1	39	ASP	C-N-CA	7.57	127.21	119.56
1	AA	704	A	P-O3'-C3'	-7.56	108.86	120.20
22	BA	2284	A	P-O5'-C5'	-7.56	109.56	120.90
22	BA	1732	C	P-O3'-C3'	7.55	131.53	120.20
22	BA	1866	A	P-O3'-C3'	-7.55	108.87	120.20
53	CA	9	G	P-O3'-C3'	-7.55	108.87	120.20
22	BA	1964	G	P-O3'-C3'	7.54	131.50	120.20
22	BA	403	U	P-O3'-C3'	7.52	131.48	120.20
22	BA	2210	U	P-O3'-C3'	7.52	131.48	120.20
22	DA	2429	G	P-O3'-C3'	-7.52	108.92	120.20
1	AA	1395	C	P-O5'-C5'	-7.51	109.63	120.90
22	BA	1568	G	P-O3'-C3'	-7.51	108.94	120.20
22	BA	2267	A	P-O5'-C5'	-7.51	109.64	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1228	C	N1-C1'-C2'	-7.50	100.75	112.00
22	DA	1776	G	P-O3'-C3'	-7.50	108.95	120.20
22	BA	811	U	O3'-P-O5'	-7.50	92.75	104.00
53	CA	794	A	P-O3'-C3'	-7.50	108.96	120.20
22	BA	1144	A	P-O3'-C3'	-7.49	108.96	120.20
1	AA	547	A	P-O3'-C3'	7.49	131.44	120.20
22	BA	646	U	N1-C1'-C2'	-7.49	100.77	112.00
22	BA	2385	C	N1-C1'-C2'	-7.49	100.77	112.00
22	BA	126	A	P-O3'-C3'	-7.48	108.99	120.20
53	CA	1367	C	N1-C1'-C2'	-7.47	100.79	112.00
22	BA	206	U	N1-C1'-C2'	-7.47	100.80	112.00
22	BA	2289	G	P-O3'-C3'	-7.46	109.00	120.20
53	CA	348	G	P-O3'-C3'	-7.46	109.01	120.20
22	DA	588	U	N1-C1'-C2'	-7.46	100.81	112.00
22	BA	404	A	P-O3'-C3'	7.46	131.39	120.20
22	DA	484	C	N1-C1'-C2'	-7.46	100.81	112.00
1	AA	1282	C	N1-C1'-C2'	-7.46	100.82	112.00
22	BA	1848	A	P-O3'-C3'	-7.46	109.02	120.20
1	AA	1303	C	N1-C1'-C2'	-7.45	100.83	112.00
22	BA	2656	U	N1-C1'-C2'	-7.45	100.83	112.00
22	DA	915	C	N1-C1'-C2'	-7.44	100.84	112.00
22	BA	2820	A	O3'-P-O5'	-7.44	92.85	104.00
22	DA	862	G	P-O3'-C3'	-7.43	109.05	120.20
1	AA	175	C	N1-C1'-C2'	-7.43	100.85	112.00
22	BA	164	C	P-O3'-C3'	-7.43	109.05	120.20
22	BA	1455	G	P-O3'-C3'	-7.43	109.05	120.20
22	BA	1941	C	N1-C1'-C2'	-7.43	100.86	112.00
22	BA	2835	A	P-O3'-C3'	7.42	131.34	120.20
22	BA	2613	U	O4'-C1'-N1	7.42	119.33	108.20
8	AH	91	LEU	CA-C-N	7.42	127.69	119.90
8	AH	91	LEU	C-N-CA	7.42	127.69	119.90
22	DA	1289	C	N1-C1'-C2'	-7.42	100.88	112.00
22	BA	61	C	P-O5'-C5'	-7.41	109.78	120.90
12	AL	20	VAL	CA-C-N	7.41	127.12	119.64
12	AL	20	VAL	C-N-CA	7.41	127.12	119.64
22	BA	2424	C	N1-C1'-C2'	-7.41	100.89	112.00
53	CA	688	G	P-O3'-C3'	-7.41	109.09	120.20
22	BA	783	A	N9-C1'-C2'	-7.40	100.90	112.00
22	BA	2615	U	P-O3'-C3'	-7.40	109.10	120.20
22	BA	1965	C	P-O5'-C5'	-7.39	109.81	120.90
22	DA	224	U	P-O3'-C3'	-7.39	109.12	120.20
22	BA	1648	U	N1-C1'-C2'	-7.37	100.94	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	449	A	P-O5'-C5'	-7.37	109.84	120.90
22	BA	1971	U	N1-C1'-C2'	-7.37	100.95	112.00
22	DA	1498	C	N1-C1'-C2'	-7.37	100.95	112.00
22	BA	2542	A	P-O3'-C3'	7.36	131.25	120.20
23	BB	42	C	N1-C1'-C2'	-7.36	100.96	112.00
44	BW	38	ARG	N-CA-C	-7.36	101.81	111.74
53	CA	330	C	N1-C1'-C2'	-7.36	100.97	112.00
1	AA	1192	C	N1-C1'-C2'	-7.35	100.97	112.00
22	DA	459	U	N1-C1'-C2'	-7.35	100.97	112.00
22	BA	685	A	P-O3'-C3'	7.34	131.21	120.20
22	BA	727	A	P-O3'-C3'	-7.33	109.20	120.20
42	BU	84	PHE	N-CA-C	7.33	120.56	109.41
57	DB	68	C	N1-C1'-C2'	-7.33	101.00	112.00
53	CA	1283	U	N1-C1'-C2'	-7.33	101.01	112.00
22	BA	503	A	P-O3'-C3'	7.33	131.19	120.20
22	BA	1522	A	P-O3'-C3'	7.32	131.19	120.20
22	BA	2511	U	P-O3'-C3'	-7.32	109.22	120.20
22	DA	533	G	P-O3'-C3'	-7.32	109.22	120.20
22	BA	637	A	P-O3'-C3'	7.32	131.17	120.20
22	DA	2498	C	N1-C1'-C2'	-7.32	101.03	112.00
22	DA	1982	U	N1-C1'-C2'	-7.31	101.03	112.00
57	DB	107	G	O3'-P-O5'	-7.31	93.03	104.00
1	AA	564	C	N1-C1'-C2'	-7.31	101.03	112.00
53	CA	344	A	P-O3'-C3'	7.31	131.16	120.20
22	BA	2808	G	P-O3'-C3'	7.31	131.16	120.20
22	BA	1210	G	P-O3'-C3'	7.30	131.15	120.20
1	AA	486	U	P-O5'-C5'	-7.29	109.97	120.90
22	DA	1967	C	N1-C1'-C2'	-7.28	101.08	112.00
1	AA	119	A	P-O3'-C3'	7.28	131.12	120.20
1	AA	1051	C	N1-C1'-C2'	-7.28	101.08	112.00
22	BA	61	C	P-O3'-C3'	-7.28	109.29	120.20
22	BA	2333	A	P-O3'-C3'	7.28	131.11	120.20
22	BA	2312	U	P-O3'-C3'	-7.27	109.29	120.20
22	BA	1664	A	P-O5'-C5'	-7.27	110.00	120.90
4	CD	166	LYS	CA-C-N	7.27	127.68	119.83
4	CD	166	LYS	C-N-CA	7.27	127.68	119.83
1	AA	961	U	N1-C1'-C2'	-7.27	101.10	112.00
53	CA	110	C	P-O3'-C3'	-7.26	109.30	120.20
31	BJ	96	ARG	CA-C-N	7.26	126.77	118.85
31	BJ	96	ARG	C-N-CA	7.26	126.77	118.85
22	DA	1613	G	P-O3'-C3'	-7.26	109.31	120.20
22	DA	1758	U	N1-C1'-C2'	7.26	124.89	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2880	C	N1-C1'-C2'	-7.26	101.11	112.00
22	BA	2745	C	P-O5'-C5'	-7.26	110.02	120.90
22	BA	2052	A	P-O5'-C5'	-7.25	110.03	120.90
22	BA	164	C	N1-C1'-C2'	-7.25	101.13	112.00
22	DA	1983	G	P-O3'-C3'	-7.24	109.35	120.20
22	BA	1787	A	P-O3'-C3'	-7.23	109.36	120.20
22	DA	1817	G	P-O3'-C3'	-7.23	109.36	120.20
22	BA	812	C	N1-C1'-C2'	-7.22	101.16	112.00
22	BA	995	C	P-O3'-C3'	7.22	131.03	120.20
1	AA	1141	C	N1-C1'-C2'	-7.21	101.18	112.00
1	AA	1184	G	P-O3'-C3'	-7.21	109.39	120.20
22	BA	2511	U	N1-C1'-C2'	-7.21	101.19	112.00
22	BA	946	C	N1-C1'-C2'	-7.20	101.20	112.00
31	BJ	42	ALA	N-CA-C	-7.20	102.76	112.26
53	CA	874	G	P-O3'-C3'	-7.20	109.41	120.20
22	BA	251	A	O3'-P-O5'	-7.19	93.21	104.00
22	DA	413	C	P-O3'-C3'	-7.19	109.41	120.20
22	BA	562	U	O4'-C1'-N1	-7.19	97.72	108.50
53	CA	110	C	N1-C1'-C2'	-7.19	101.22	112.00
1	AA	373	A	P-O3'-C3'	-7.18	109.42	120.20
22	DA	2299	U	N1-C1'-C2'	-7.18	101.23	112.00
22	BA	1634	A	P-O3'-C3'	7.18	130.97	120.20
22	BA	2836	U	P-O3'-C3'	-7.18	109.44	120.20
53	CA	992	U	P-O3'-C3'	7.17	130.95	120.20
22	DA	1956	U	N1-C1'-C2'	-7.16	101.26	112.00
1	AA	431	A	P-O3'-C3'	-7.16	109.47	120.20
22	DA	1267	U	N1-C1'-C2'	-7.15	101.27	112.00
22	BA	740	C	P-O5'-C5'	-7.15	110.18	120.90
1	AA	891	U	N1-C1'-C2'	-7.15	101.28	112.00
23	BB	43	C	P-O3'-C3'	-7.15	109.48	120.20
22	BA	1942	C	P-O3'-C3'	-7.14	109.49	120.20
1	AA	812	G	P-O3'-C3'	7.13	130.90	120.20
22	BA	1849	G	P-O3'-C3'	-7.13	109.50	120.20
23	BB	67	G	P-O3'-C3'	-7.13	109.51	120.20
22	BA	2425	A	P-O3'-C3'	7.12	130.88	120.20
35	BN	79	LEU	N-CA-C	-7.12	100.66	110.35
53	CA	1449	C	N1-C1'-C2'	-7.12	101.32	112.00
22	BA	1918	A	P-O3'-C3'	7.12	130.88	120.20
1	AA	1320	C	N1-C1'-C2'	-7.11	101.33	112.00
22	DA	2024	G	P-O3'-C3'	-7.11	109.53	120.20
5	AE	111	ARG	N-CA-C	-7.10	103.78	113.30
1	AA	792	A	P-O3'-C3'	7.10	130.85	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2879	A	P-O3'-C3'	7.10	130.85	120.20
53	CA	349	A	P-O3'-C3'	-7.10	109.55	120.20
22	BA	1063	G	P-O3'-C3'	-7.09	109.56	120.20
22	DA	2347	C	N1-C1'-C2'	-7.08	101.38	112.00
1	AA	1181	G	P-O3'-C3'	7.08	130.81	120.20
22	BA	2226	C	N1-C1'-C2'	-7.07	101.39	112.00
1	AA	1469	C	P-O5'-C5'	-7.07	110.29	120.90
22	BA	811	U	P-O3'-C3'	7.07	130.80	120.20
22	DA	2023	C	P-O3'-C3'	-7.05	109.62	120.20
22	BA	2611	C	N1-C1'-C2'	-7.05	101.43	112.00
3	AC	15	LYS	CA-C-N	7.04	128.64	119.84
3	AC	15	LYS	C-N-CA	7.04	128.64	119.84
22	BA	1398	C	P-O3'-C3'	-7.04	109.64	120.20
1	AA	1203	C	P-O3'-C3'	-7.03	109.65	120.20
22	BA	567	U	P-O3'-C3'	-7.03	109.65	120.20
22	BA	1859	U	P-O3'-C3'	-7.03	109.65	120.20
22	BA	249	C	P-O3'-C3'	7.03	130.74	120.20
53	CA	564	C	N1-C1'-C2'	-7.03	101.46	112.00
1	AA	500	G	P-O3'-C3'	-7.02	109.66	120.20
34	BM	108	VAL	CA-C-N	7.01	128.11	119.98
34	BM	108	VAL	C-N-CA	7.01	128.11	119.98
22	BA	1565	C	N1-C1'-C2'	7.01	124.51	114.00
22	BA	2428	G	P-O3'-C3'	-7.01	109.69	120.20
22	BA	1013	C	P-O3'-C3'	-7.01	109.69	120.20
22	BA	604	G	P-O3'-C3'	-7.00	109.69	120.20
1	AA	1157	A	P-O3'-C3'	7.00	130.70	120.20
22	BA	531	C	N1-C1'-C2'	6.99	124.49	114.00
22	BA	2874	C	N1-C1'-C2'	-6.99	101.51	112.00
26	BE	117	ARG	N-CA-C	-6.99	104.75	113.28
22	DA	976	G	P-O3'-C3'	-6.99	109.71	120.20
22	DA	829	A	P-O3'-C3'	6.99	130.68	120.20
22	BA	687	C	P-O3'-C3'	-6.97	109.74	120.20
22	BA	1809	A	P-O3'-C3'	-6.97	109.75	120.20
22	BA	1459	G	P-O3'-C3'	-6.96	109.76	120.20
1	AA	415	A	P-O3'-C3'	-6.96	109.77	120.20
38	BQ	7	VAL	N-CA-C	-6.96	103.53	110.62
22	DA	235	U	P-O3'-C3'	-6.95	109.78	120.20
22	BA	507	A	P-O3'-C3'	-6.95	109.78	120.20
1	AA	1332	A	P-O3'-C3'	-6.95	109.78	120.20
22	BA	2297	A	P-O3'-C3'	-6.93	109.80	120.20
22	BA	2757	A	P-O3'-C3'	-6.92	109.82	120.20
22	DA	445	C	N1-C1'-C2'	-6.92	101.62	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1611	C	P-O5'-C5'	-6.92	110.52	120.90
1	AA	724	G	P-O3'-C3'	-6.92	109.82	120.20
1	AA	972	C	P-O3'-C3'	-6.91	109.83	120.20
28	BG	6	ALA	CA-C-N	6.90	128.46	119.84
28	BG	6	ALA	C-N-CA	6.90	128.46	119.84
12	AL	23	LEU	N-CA-C	6.90	125.49	110.80
22	BA	2504	U	P-O5'-C5'	-6.90	110.56	120.90
22	BA	1048	A	P-O3'-C3'	-6.89	109.86	120.20
22	BA	2490	G	P-O3'-C3'	6.89	130.54	120.20
22	BA	335	C	P-O3'-C3'	-6.88	109.87	120.20
22	DA	217	A	P-O3'-C3'	-6.88	109.88	120.20
22	DA	60	G	P-O3'-C3'	6.88	130.51	120.20
22	BA	1204	A	P-O3'-C3'	6.87	130.51	120.20
53	CA	1161	C	N1-C1'-C2'	-6.87	101.69	112.00
1	AA	816	A	P-O3'-C3'	-6.87	109.90	120.20
22	DA	2458	G	P-O3'-C3'	6.87	130.50	120.20
22	BA	1931	U	N1-C1'-C2'	-6.86	101.70	112.00
53	CA	439	U	N1-C1'-C2'	-6.86	101.71	112.00
31	BJ	43	GLU	N-CA-C	-6.86	102.65	111.02
22	DA	606	U	N1-C1'-C2'	-6.86	101.71	112.00
53	CA	316	C	N1-C1'-C2'	-6.86	101.71	112.00
22	DA	2875	C	N1-C1'-C2'	-6.84	101.73	112.00
22	DA	2225	A	P-O3'-C3'	6.84	130.46	120.20
22	DA	1565	C	P-O3'-C3'	6.84	130.46	120.20
1	AA	815	A	P-O3'-C3'	6.83	130.44	120.20
53	CA	548	G	P-O3'-C3'	-6.83	109.96	120.20
53	CA	734	G	P-O3'-C3'	-6.83	109.96	120.20
22	BA	243	U	P-O3'-C3'	-6.82	109.96	120.20
53	CA	109	A	P-O3'-C3'	6.82	130.43	120.20
22	BA	2629	U	P-O3'-C3'	6.82	130.43	120.20
53	CA	13	U	P-O3'-C3'	6.82	130.42	120.20
1	AA	368	U	N1-C1'-C2'	-6.81	101.78	112.00
22	BA	2756	U	P-O3'-C3'	6.81	130.42	120.20
1	AA	122	G	P-O3'-C3'	-6.81	109.98	120.20
27	BF	62	GLN	N-CA-C	6.81	117.46	108.07
22	BA	2639	A	P-O5'-C5'	-6.80	110.70	120.90
22	BA	1693	U	P-O3'-C3'	6.79	130.39	120.20
24	DC	225	ASN	CA-C-N	6.79	126.30	119.24
24	DC	225	ASN	C-N-CA	6.79	126.30	119.24
22	BA	482	A	P-O3'-C3'	-6.77	110.04	120.20
22	BA	1324	G	P-O3'-C3'	6.77	130.36	120.20
22	DA	1556	C	N1-C1'-C2'	-6.77	101.84	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	BN	69	ARG	N-CA-C	-6.77	100.19	110.14
22	DA	1560	G	P-O3'-C3'	-6.77	110.05	120.20
22	DA	1667	G	P-O3'-C3'	6.76	130.34	120.20
25	DD	193	VAL	CA-C-N	6.76	128.29	119.84
25	DD	193	VAL	C-N-CA	6.76	128.29	119.84
53	CA	1401	G	P-O3'-C3'	-6.76	110.06	120.20
22	BA	2324	U	N1-C1'-C2'	6.75	124.13	114.00
22	BA	2866	U	P-O3'-C3'	6.75	130.33	120.20
22	DA	763	G	P-O3'-C3'	-6.75	110.07	120.20
22	DA	2063	C	P-O3'-C3'	-6.75	110.07	120.20
1	AA	519	C	P-O3'-C3'	-6.73	110.10	120.20
1	AA	517	G	P-O3'-C3'	6.73	130.30	120.20
22	BA	2197	U	O3'-P-O5'	-6.73	93.91	104.00
1	AA	1302	C	N1-C1'-C2'	-6.72	103.91	114.00
1	AA	1064	G	P-O3'-C3'	6.72	130.28	120.20
1	AA	316	C	P-O3'-C3'	-6.72	110.12	120.20
1	AA	1196	A	P-O3'-C3'	6.72	130.28	120.20
1	AA	1200	C	P-O3'-C3'	6.71	130.27	120.20
23	BB	42	C	P-O3'-C3'	-6.71	110.13	120.20
22	DA	1785	A	P-O3'-C3'	-6.71	110.13	120.20
22	BA	16	C	P-O3'-C3'	-6.71	110.14	120.20
22	BA	621	A	P-O3'-C3'	-6.70	110.14	120.20
53	CA	32	A	P-O3'-C3'	-6.70	110.14	120.20
22	BA	616	A	P-O3'-C3'	-6.70	110.16	120.20
22	BA	2225	A	P-O3'-C3'	6.69	130.24	120.20
53	CA	68	G	P-O3'-C3'	-6.69	110.16	120.20
22	DA	868	U	N1-C1'-C2'	-6.69	101.96	112.00
53	CA	95	C	N1-C1'-C2'	-6.69	101.97	112.00
22	BA	178	G	P-O3'-C3'	-6.68	110.17	120.20
22	BA	806	C	P-O5'-C5'	-6.68	110.88	120.90
22	BA	1398	C	N1-C1'-C2'	-6.68	101.98	112.00
22	BA	373	U	P-O3'-C3'	-6.67	110.19	120.20
53	CA	513	C	N1-C1'-C2'	-6.67	102.00	112.00
22	DA	1945	G	P-O3'-C3'	-6.67	110.19	120.20
1	AA	984	C	N1-C1'-C2'	-6.67	102.00	112.00
22	BA	1651	G	O3'-P-O5'	-6.67	94.00	104.00
22	BA	2791	G	P-O3'-C3'	-6.66	110.21	120.20
53	CA	527	G	P-O3'-C3'	-6.66	110.22	120.20
22	DA	2573	C	N1-C1'-C2'	-6.65	102.02	112.00
22	BA	1816	C	N1-C1'-C2'	-6.65	102.02	112.00
22	DA	1536	C	P-O3'-C3'	6.65	130.18	120.20
10	AJ	54	SER	CA-C-N	6.65	127.18	119.47

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	AJ	54	SER	C-N-CA	6.65	127.18	119.47
22	BA	84	A	P-O3'-C3'	6.64	130.17	120.20
22	DA	1539	U	N1-C1'-C2'	-6.64	102.03	112.00
22	BA	2874	C	P-O5'-C5'	-6.64	110.94	120.90
22	BA	302	C	P-O3'-C3'	-6.64	110.24	120.20
22	BA	266	G	P-O3'-C3'	-6.64	110.24	120.20
43	BV	80	HIS	CA-C-N	6.64	126.89	119.32
43	BV	80	HIS	C-N-CA	6.64	126.89	119.32
22	BA	2325	G	P-O3'-C3'	-6.63	110.25	120.20
1	AA	1197	A	P-O3'-C3'	-6.63	110.25	120.20
53	CA	717	U	N1-C1'-C2'	6.62	123.93	114.00
53	CA	817	C	P-O3'-C3'	6.62	130.13	120.20
22	BA	2391	G	P-O3'-C3'	6.61	130.12	120.20
22	BA	138	U	N1-C1'-C2'	-6.61	102.08	112.00
22	BA	474	G	P-O3'-C3'	6.61	130.12	120.20
22	DA	1963	U	P-O3'-C3'	-6.61	110.28	120.20
22	DA	1603	A	P-O3'-C3'	-6.61	110.29	120.20
22	DA	2493	U	P-O3'-C3'	-6.61	110.29	120.20
22	BA	1135	C	N1-C1'-C2'	-6.60	102.10	112.00
23	BB	15	A	P-O5'-C5'	-6.59	111.02	120.90
53	CA	85	U	P-O3'-C3'	6.59	130.08	120.20
1	AA	110	C	P-O5'-C5'	-6.59	111.02	120.90
22	BA	975	A	P-O3'-C3'	-6.58	110.33	120.20
22	BA	2732	G	P-O3'-C3'	6.58	130.06	120.20
22	DA	1780	A	P-O3'-C3'	6.58	130.06	120.20
22	DA	1829	A	P-O3'-C3'	-6.58	110.34	120.20
1	AA	974	A	P-O3'-C3'	6.57	130.06	120.20
22	BA	2458	G	P-O3'-C3'	6.57	130.06	120.20
22	BA	1654	A	P-O3'-C3'	-6.57	110.34	120.20
53	CA	564	C	P-O3'-C3'	-6.57	110.34	120.20
22	DA	622	G	P-O3'-C3'	-6.57	110.35	120.20
22	DA	957	C	P-O3'-C3'	6.57	130.05	120.20
22	DA	2249	U	N1-C1'-C2'	6.56	123.84	114.00
1	AA	87	C	N1-C1'-C2'	-6.56	102.17	112.00
22	BA	995	C	O4'-C1'-N1	-6.56	98.36	108.20
22	DA	2052	A	P-O3'-C3'	-6.55	110.37	120.20
22	BA	572	A	P-O5'-C5'	-6.55	111.08	120.90
22	DA	1013	C	P-O3'-C3'	-6.55	110.38	120.20
22	DA	531	C	P-O3'-C3'	6.55	130.02	120.20
1	AA	875	U	P-O3'-C3'	-6.54	110.38	120.20
22	DA	304	U	P-O3'-C3'	-6.54	110.39	120.20
1	AA	642	A	P-O3'-C3'	-6.54	110.39	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	2349	G	P-O3'-C3'	-6.54	110.39	120.20
22	DA	128	C	N1-C1'-C2'	-6.54	102.19	112.00
22	BA	1821	A	P-O3'-C3'	-6.53	110.41	120.20
22	BA	1716	U	N1-C1'-C2'	-6.52	102.22	112.00
22	BA	933	A	P-O3'-C3'	-6.52	110.42	120.20
22	DA	705	A	P-O3'-C3'	-6.52	110.42	120.20
22	BA	2501	C	P-O3'-C3'	-6.51	110.43	120.20
1	AA	279	A	P-O3'-C3'	6.51	129.96	120.20
22	BA	1330	C	P-O3'-C3'	-6.51	110.44	120.20
22	DA	2314	A	P-O3'-C3'	-6.51	110.44	120.20
22	BA	143	C	N1-C1'-C2'	-6.50	102.25	112.00
22	DA	36	G	P-O3'-C3'	-6.50	110.45	120.20
1	AA	722	G	P-O3'-C3'	-6.50	110.46	120.20
53	CA	374	A	P-O3'-C3'	-6.49	110.46	120.20
57	DB	88	C	P-O3'-C3'	6.49	129.93	120.20
1	AA	268	U	P-O3'-C3'	-6.49	110.47	120.20
25	BD	117	GLY	N-CA-C	6.48	123.81	114.67
53	CA	277	C	N1-C1'-C2'	-6.48	102.28	112.00
22	DA	1963	U	N1-C1'-C2'	-6.48	102.28	112.00
22	BA	1537	G	P-O3'-C3'	-6.48	110.48	120.20
53	CA	132	C	P-O3'-C3'	-6.48	110.48	120.20
26	BE	37	ALA	N-CA-C	-6.48	101.98	110.33
2	AB	191	ASP	CA-C-N	6.47	126.17	119.82
2	AB	191	ASP	C-N-CA	6.47	126.17	119.82
22	BA	985	C	N1-C1'-C2'	-6.47	102.29	112.00
22	BA	2511	U	P-O5'-C5'	-6.47	111.19	120.90
22	DA	860	U	P-O3'-C3'	-6.47	110.49	120.20
22	DA	1865	U	N1-C1'-C2'	6.47	121.71	112.00
22	BA	2712	C	N1-C1'-C2'	6.46	123.70	114.00
22	BA	335	C	P-O5'-C5'	-6.46	111.22	120.90
22	BA	381	G	P-O5'-C5'	-6.46	111.22	120.90
22	BA	1664	A	O3'-P-O5'	-6.46	94.32	104.00
8	AH	89	ASP	N-CA-C	-6.45	105.27	113.01
22	BA	1329	U	P-O3'-C3'	6.45	129.88	120.20
22	BA	2490	G	O3'-P-O5'	6.45	113.68	104.00
53	CA	14	U	P-O3'-C3'	-6.45	110.52	120.20
53	CA	52	C	N1-C1'-C2'	-6.45	102.33	112.00
22	BA	805	G	P-O5'-C5'	-6.44	111.24	120.90
53	CA	1530	G	P-O3'-C3'	-6.44	110.54	120.20
1	AA	1395	C	N1-C1'-C2'	-6.44	102.34	112.00
22	BA	243	U	N1-C1'-C2'	-6.44	102.34	112.00
36	BO	102	ARG	N-CA-C	-6.44	104.91	112.89

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
23	BB	109	A	P-O3'-C3'	-6.43	110.55	120.20
10	CJ	88	MET	N-CA-C	-6.43	104.31	111.71
22	DA	122	G	P-O3'-C3'	-6.43	110.55	120.20
1	AA	14	U	N1-C1'-C2'	-6.43	102.35	112.00
22	BA	782	A	P-O3'-C3'	6.43	129.84	120.20
1	AA	511	C	P-O3'-C3'	6.43	129.84	120.20
22	BA	1256	G	P-O3'-C3'	-6.42	110.56	120.20
22	BA	2893	A	P-O3'-C3'	6.42	129.84	120.20
22	BA	324	A	P-O3'-C3'	-6.42	110.57	120.20
1	AA	1348	U	N1-C1'-C2'	-6.42	102.38	112.00
22	DA	121	G	P-O3'-C3'	-6.42	110.58	120.20
22	BA	406	G	P-O3'-C3'	-6.41	110.58	120.20
22	BA	1759	A	P-O3'-C3'	-6.41	110.59	120.20
53	CA	486	U	P-O5'-C5'	-6.41	111.29	120.90
1	AA	1200	C	N1-C1'-C2'	6.41	123.61	114.00
1	AA	1349	A	P-O3'-C3'	-6.41	110.59	120.20
22	BA	2214	C	P-O3'-C3'	-6.40	110.59	120.20
22	BA	2776	A	P-O3'-C3'	6.40	129.80	120.20
22	DA	805	G	P-O3'-C3'	6.40	129.80	120.20
22	DA	2404	U	N1-C1'-C2'	-6.40	102.40	112.00
22	BA	120	U	P-O5'-C5'	-6.40	111.30	120.90
22	BA	2842	G	P-O5'-C5'	-6.40	111.31	120.90
1	AA	131	A	P-O3'-C3'	-6.39	110.61	120.20
22	DA	15	G	P-O3'-C3'	-6.39	110.61	120.20
22	BA	92	U	P-O3'-C3'	-6.39	110.61	120.20
22	DA	531	C	N1-C1'-C2'	6.39	121.59	112.00
22	BA	2353	G	P-O5'-C5'	-6.39	111.32	120.90
1	AA	369	G	P-O3'-C3'	-6.38	110.62	120.20
22	DA	1386	C	N1-C1'-C2'	-6.38	102.43	112.00
22	DA	2428	G	P-O3'-C3'	-6.38	110.63	120.20
58	DF	176	PHE	CB-CA-C	-6.38	109.20	116.54
22	BA	2603	G	P-O3'-C3'	-6.38	110.64	120.20
22	BA	395	U	P-O3'-C3'	6.37	129.76	120.20
22	DA	1655	A	P-O3'-C3'	-6.37	110.64	120.20
22	BA	1611	C	P-O3'-C3'	-6.37	110.65	120.20
57	DB	87	U	P-O3'-C3'	6.37	129.75	120.20
22	DA	1839	G	P-O3'-C3'	-6.36	110.66	120.20
1	AA	430	A	P-O3'-C3'	-6.36	110.66	120.20
22	DA	961	C	N1-C1'-C2'	6.36	123.54	114.00
22	BA	2646	C	N1-C1'-C2'	-6.36	102.46	112.00
22	BA	1236	G	P-O3'-C3'	6.36	129.73	120.20
22	BA	1247	A	P-O3'-C3'	6.35	129.73	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	2459	A	P-O3'-C3'	-6.35	110.67	120.20
22	BA	587	C	N1-C1'-C2'	6.35	123.53	114.00
53	CA	704	A	P-O3'-C3'	-6.35	110.67	120.20
22	DA	1256	G	P-O3'-C3'	-6.35	110.68	120.20
22	DA	1396	U	P-O3'-C3'	6.35	129.72	120.20
1	AA	688	G	P-O3'-C3'	-6.35	110.68	120.20
22	BA	2573	C	N1-C1'-C2'	-6.35	102.48	112.00
1	AA	1167	A	P-O3'-C3'	6.34	129.71	120.20
22	BA	1654	A	C3'-C2'-C1'	6.34	107.64	101.30
22	BA	85	G	P-O3'-C3'	-6.33	110.70	120.20
22	BA	386	G	O3'-P-O5'	-6.33	94.50	104.00
22	BA	1858	A	P-O3'-C3'	-6.33	110.70	120.20
22	DA	1700	A	P-O3'-C3'	-6.33	110.70	120.20
22	DA	2284	A	P-O3'-C3'	-6.33	110.70	120.20
22	BA	2384	U	N1-C1'-C2'	6.33	123.49	114.00
22	DA	990	A	P-O3'-C3'	-6.33	110.71	120.20
22	DA	413	C	N1-C1'-C2'	-6.33	102.51	112.00
1	AA	1453	G	P-O3'-C3'	-6.32	110.72	120.20
1	AA	1502	A	P-O3'-C3'	6.32	129.68	120.20
22	BA	13	A	P-O3'-C3'	6.32	129.68	120.20
22	BA	962	G	P-O5'-C5'	-6.32	111.42	120.90
22	BA	1839	G	P-O5'-C5'	-6.32	111.42	120.90
22	BA	2423	U	P-O3'-C3'	6.32	129.68	120.20
53	CA	122	G	P-O3'-C3'	-6.32	110.72	120.20
1	AA	184	G	P-O3'-C3'	-6.32	110.73	120.20
22	DA	2251	G	P-O3'-C3'	-6.32	110.73	120.20
22	BA	2384	U	P-O3'-C3'	6.31	129.67	120.20
22	BA	914	G	P-O3'-C3'	-6.31	110.73	120.20
1	AA	718	A	P-O3'-C3'	-6.31	110.74	120.20
53	CA	701	U	P-O3'-C3'	6.31	129.66	120.20
22	DA	2837	A	P-O3'-C3'	-6.30	110.74	120.20
1	AA	1433	A	P-O3'-C3'	-6.30	110.75	120.20
1	AA	1451	U	N1-C1'-C2'	6.30	121.45	112.00
53	CA	277	C	P-O3'-C3'	-6.30	110.75	120.20
22	DA	656	G	P-O3'-C3'	-6.30	110.75	120.20
22	DA	778	G	P-O3'-C3'	-6.30	110.75	120.20
53	CA	1202	U	P-O3'-C3'	-6.30	110.76	120.20
1	AA	1365	G	P-O3'-C3'	-6.29	110.76	120.20
22	BA	1739	A	P-O3'-C3'	-6.29	110.76	120.20
1	AA	316	C	N1-C1'-C2'	-6.29	102.57	112.00
10	AJ	40	ILE	CA-C-N	6.28	127.69	119.84
10	AJ	40	ILE	C-N-CA	6.28	127.69	119.84

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	746	U	P-O3'-C3'	6.28	129.61	120.20
25	DD	151	THR	CA-C-N	-6.28	112.00	119.84
25	DD	151	THR	C-N-CA	-6.28	112.00	119.84
53	CA	1301	U	P-O3'-C3'	-6.27	110.79	120.20
22	BA	1971	U	O3'-P-O5'	-6.27	94.59	104.00
22	DA	575	A	P-O3'-C3'	-6.27	110.80	120.20
22	BA	1963	U	N1-C1'-C2'	-6.26	102.60	112.00
22	DA	2312	U	P-O3'-C3'	-6.26	110.81	120.20
22	DA	1010	A	P-O3'-C3'	-6.26	110.81	120.20
22	BA	2034	U	N1-C1'-C2'	-6.26	102.62	112.00
39	BR	46	GLU	N-CA-C	6.26	116.54	108.34
22	BA	562	U	N1-C1'-C2'	6.25	121.38	112.00
22	BA	1255	U	O3'-P-O5'	-6.25	94.62	104.00
22	BA	2469	A	P-O3'-C3'	-6.25	110.83	120.20
22	BA	443	A	P-O5'-C5'	-6.25	111.53	120.90
22	DA	335	C	N1-C1'-C2'	-6.24	102.63	112.00
22	BA	230	G	P-O3'-C3'	-6.23	110.86	120.20
22	BA	812	C	P-O3'-C3'	-6.23	110.86	120.20
22	BA	1332	G	P-O3'-C3'	6.22	129.53	120.20
53	CA	1148	U	N1-C1'-C2'	-6.22	102.67	112.00
22	DA	687	C	N1-C1'-C2'	-6.22	102.67	112.00
22	BA	1255	U	P-O3'-C3'	6.22	129.53	120.20
22	DA	1556	C	P-O3'-C3'	-6.22	110.87	120.20
22	BA	2321	U	N1-C1'-C2'	-6.21	102.68	112.00
23	BB	67	G	P-O5'-C5'	-6.21	111.58	120.90
22	BA	2344	U	N1-C1'-C2'	6.21	123.32	114.00
22	DA	2267	A	P-O3'-C3'	-6.21	110.88	120.20
22	BA	1962	C	P-O3'-C3'	6.21	129.51	120.20
1	AA	1258	G	P-O3'-C3'	-6.20	110.90	120.20
22	BA	1865	U	N1-C1'-C2'	6.20	123.29	114.00
1	AA	174	A	P-O3'-C3'	-6.19	110.91	120.20
22	DA	325	G	P-O3'-C3'	-6.19	110.91	120.20
22	BA	990	A	P-O3'-C3'	-6.19	110.91	120.20
22	DA	868	U	P-O3'-C3'	-6.19	110.92	120.20
1	AA	813	U	P-O3'-C3'	-6.18	110.92	120.20
22	BA	303	G	P-O3'-C3'	-6.18	110.92	120.20
22	BA	2336	A	P-O3'-C3'	6.18	129.47	120.20
53	CA	239	U	N1-C1'-C2'	-6.18	102.73	112.00
53	CA	486	U	N1-C1'-C2'	-6.18	102.73	112.00
22	BA	573	U	O3'-P-O5'	-6.18	94.73	104.00
53	CA	512	U	P-O3'-C3'	-6.18	110.94	120.20
22	DA	2683	C	N1-C1'-C2'	-6.18	102.73	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	388	G	P-O3'-C3'	6.17	129.46	120.20
22	BA	1386	C	P-O3'-C3'	-6.17	110.94	120.20
22	BA	1034	G	P-O3'-C3'	-6.17	110.94	120.20
52	B4	33	HIS	N-CA-C	6.17	119.54	112.57
22	DA	2384	U	N1-C1'-C2'	6.17	123.25	114.00
1	AA	14	U	P-O5'-C5'	-6.17	111.65	120.90
22	BA	1320	C	N1-C1'-C2'	6.17	123.25	114.00
53	CA	52	C	P-O3'-C3'	-6.16	110.95	120.20
22	DA	1965	C	N1-C1'-C2'	-6.16	102.76	112.00
53	CA	116	A	P-O3'-C3'	-6.16	110.96	120.20
22	DA	164	C	P-O3'-C3'	-6.16	110.96	120.20
1	AA	597	G	P-O3'-C3'	-6.15	110.97	120.20
22	BA	204	A	P-O3'-C3'	6.15	129.43	120.20
30	BI	94	LYS	N-CA-C	-6.15	105.57	114.12
22	DA	2848	G	P-O3'-C3'	6.15	129.43	120.20
22	DA	1389	G	P-O3'-C3'	-6.15	110.98	120.20
22	BA	1038	G	O3'-P-O5'	6.15	113.22	104.00
22	BA	2609	U	O4'-C1'-N1	6.15	117.42	108.20
53	CA	534	U	N1-C1'-C2'	-6.15	102.78	112.00
22	DA	2497	A	P-O3'-C3'	6.14	129.42	120.20
22	BA	931	U	P-O3'-C3'	6.14	129.41	120.20
22	BA	1129	A	P-O3'-C3'	-6.14	110.99	120.20
29	DH	48	GLU	CA-C-N	-6.14	112.25	120.54
29	DH	48	GLU	C-N-CA	-6.14	112.25	120.54
22	BA	1667	G	P-O3'-C3'	6.14	129.41	120.20
22	BA	628	G	P-O5'-C5'	-6.14	111.69	120.90
22	BA	390	U	N1-C1'-C2'	6.14	123.21	114.00
22	BA	2239	G	P-O5'-C5'	-6.13	111.70	120.90
22	DA	746	U	N1-C1'-C2'	6.13	121.20	112.00
37	DP	16	VAL	CA-C-N	6.13	127.47	120.85
37	DP	16	VAL	C-N-CA	6.13	127.47	120.85
53	CA	792	A	P-O3'-C3'	6.12	129.39	120.20
22	DA	867	C	N1-C1'-C2'	-6.12	102.82	112.00
53	CA	1498	U	P-O3'-C3'	6.12	129.38	120.20
22	DA	1144	A	P-O3'-C3'	-6.12	111.03	120.20
22	BA	2578	G	P-O3'-C3'	-6.12	111.03	120.20
43	DV	26	PHE	CA-C-N	6.12	126.08	120.03
43	DV	26	PHE	C-N-CA	6.12	126.08	120.03
22	DA	2581	G	P-O3'-C3'	6.11	129.37	120.20
53	CA	1224	U	P-O3'-C3'	6.11	129.37	120.20
22	BA	794	A	P-O3'-C3'	-6.11	111.03	120.20
22	BA	1954	G	P-O3'-C3'	6.11	129.37	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1229	A	P-O3'-C3'	-6.11	111.04	120.20
22	BA	1008	A	O3'-P-O5'	6.11	113.16	104.00
22	BA	1072	C	N1-C1'-C2'	-6.11	104.84	114.00
22	BA	1733	G	P-O3'-C3'	-6.11	111.04	120.20
1	AA	870	U	P-O3'-C3'	6.10	129.35	120.20
22	BA	1273	U	N1-C1'-C2'	-6.10	102.85	112.00
53	CA	1051	C	N1-C1'-C2'	-6.10	102.84	112.00
1	AA	536	C	P-O3'-C3'	-6.10	111.05	120.20
46	BY	56	LEU	N-CA-C	-6.10	101.64	110.24
53	CA	1202	U	N1-C1'-C2'	-6.10	102.85	112.00
53	CA	1399	C	P-O3'-C3'	6.10	129.35	120.20
22	DA	1636	U	P-O3'-C3'	-6.09	111.06	120.20
22	BA	975	A	P-O5'-C5'	-6.09	111.76	120.90
22	BA	1963	U	P-O3'-C3'	-6.09	111.06	120.20
22	BA	2500	U	P-O5'-C5'	-6.09	111.76	120.90
1	AA	245	U	N1-C1'-C2'	-6.09	102.87	112.00
22	DA	1802	A	P-O3'-C3'	-6.09	111.06	120.20
53	CA	389	A	P-O3'-C3'	-6.09	111.07	120.20
32	BK	47	ILE	CA-C-N	6.09	127.45	119.84
32	BK	47	ILE	C-N-CA	6.09	127.45	119.84
22	BA	1647	U	O4'-C1'-N1	6.08	117.32	108.20
22	BA	2021	C	P-O3'-C3'	6.08	129.32	120.20
22	DA	2289	G	P-O3'-C3'	-6.08	111.08	120.20
22	BA	2880	C	P-O3'-C3'	-6.08	111.08	120.20
25	DD	113	SER	N-CA-C	6.08	117.52	107.73
1	AA	306	A	P-O3'-C3'	-6.08	111.08	120.20
22	DA	1997	C	P-O3'-C3'	-6.08	111.08	120.20
22	DA	2036	C	N1-C1'-C2'	-6.08	102.88	112.00
22	BA	369	U	N1-C1'-C2'	6.08	121.11	112.00
22	DA	162	U	P-O3'-C3'	6.08	129.31	120.20
22	BA	2285	C	P-O5'-C5'	-6.07	111.79	120.90
22	BA	527	C	P-O3'-C3'	6.07	129.31	120.20
22	BA	2392	A	P-O5'-C5'	-6.07	111.79	120.90
53	CA	1502	A	P-O3'-C3'	6.07	129.31	120.20
24	BC	58	LYS	N-CA-C	6.07	117.69	111.14
22	DA	726	G	P-O3'-C3'	6.07	129.30	120.20
1	AA	509	A	P-O3'-C3'	-6.07	111.10	120.20
22	BA	671	C	C2'-C3'-O3'	-6.07	104.60	113.70
22	DA	1430	G	P-O3'-C3'	-6.07	111.10	120.20
1	AA	1125	U	P-O3'-C3'	6.06	129.30	120.20
22	BA	27	G	P-O3'-C3'	6.06	129.29	120.20
46	BY	59	GLU	N-CA-C	-6.06	106.53	114.04

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	794	A	P-O3'-C3'	-6.05	111.12	120.20
22	BA	1280	G	P-O5'-C5'	-6.05	111.82	120.90
22	DA	207	A	P-O3'-C3'	-6.05	111.12	120.20
22	DA	2061	G	P-O3'-C3'	6.05	129.28	120.20
22	DA	984	A	P-O3'-C3'	6.05	129.27	120.20
22	DA	92	U	N1-C1'-C2'	-6.05	102.93	112.00
22	BA	2197	U	N1-C1'-C2'	6.05	123.07	114.00
22	DA	1557	C	N1-C1'-C2'	-6.05	102.93	112.00
22	BA	390	U	C2'-C3'-O3'	6.04	118.56	109.50
22	DA	1207	C	N1-C1'-C2'	-6.04	102.94	112.00
22	DA	1558	C	P-O3'-C3'	6.04	129.26	120.20
22	DA	1611	C	N1-C1'-C2'	-6.04	104.94	114.00
23	BB	16	G	P-O3'-C3'	-6.04	111.14	120.20
22	DA	1206	G	P-O3'-C3'	-6.04	111.14	120.20
22	BA	206	U	P-O3'-C3'	-6.04	111.14	120.20
48	B0	24	VAL	N-CA-C	6.04	116.10	110.42
22	DA	1931	U	N1-C1'-C2'	-6.03	102.95	112.00
22	BA	2259	U	P-O3'-C3'	-6.03	111.16	120.20
22	DA	527	C	P-O3'-C3'	6.03	129.24	120.20
22	BA	2286	G	P-O3'-C3'	6.03	129.24	120.20
22	BA	2092	U	OP1-P-O3'	-6.03	89.92	108.00
22	BA	2498	C	P-O3'-C3'	-6.03	111.16	120.20
22	BA	504	A	P-O5'-C5'	-6.02	111.86	120.90
22	BA	1416	G	P-O3'-C3'	6.02	129.24	120.20
22	DA	1822	C	N1-C1'-C2'	-6.02	102.97	112.00
1	AA	960	U	N1-C1'-C2'	6.02	123.03	114.00
22	BA	2492	U	N1-C1'-C2'	-6.02	102.97	112.00
1	AA	717	U	N1-C1'-C2'	6.02	123.02	114.00
53	CA	1395	C	P-O3'-C3'	-6.01	111.18	120.20
22	DA	1397	U	N1-C1'-C2'	6.01	123.02	114.00
32	DK	47	ILE	CA-C-N	6.01	127.36	119.84
32	DK	47	ILE	C-N-CA	6.01	127.36	119.84
22	BA	860	U	N1-C1'-C2'	-6.01	102.98	112.00
53	CA	1455	G	P-O3'-C3'	-6.01	111.18	120.20
1	AA	717	U	P-O3'-C3'	6.01	129.22	120.20
22	BA	2359	C	P-O5'-C5'	-6.01	111.89	120.90
20	AT	7	LYS	N-CA-C	-6.00	105.44	112.89
22	BA	1491	G	P-O3'-C3'	-6.00	111.20	120.20
22	BA	2034	U	P-O3'-C3'	-6.00	111.20	120.20
1	AA	1053	G	P-O3'-C3'	6.00	129.20	120.20
22	DA	2868	A	P-O3'-C3'	-6.00	111.21	120.20
1	AA	252	U	N1-C1'-C2'	-6.00	103.01	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1839	G	P-O3'-C3'	-6.00	111.21	120.20
24	BC	216	ARG	CA-C-N	5.99	126.00	119.89
24	BC	216	ARG	C-N-CA	5.99	126.00	119.89
22	BA	2682	A	P-O3'-C3'	-5.99	111.21	120.20
53	CA	1381	U	N1-C1'-C2'	-5.99	103.01	112.00
1	AA	282	A	P-O3'-C3'	-5.99	111.22	120.20
22	DA	730	A	P-O3'-C3'	-5.99	111.22	120.20
53	CA	439	U	P-O5'-C5'	-5.98	111.93	120.90
53	CA	596	A	P-O3'-C3'	-5.98	111.23	120.20
1	AA	173	U	P-O3'-C3'	5.98	129.16	120.20
22	BA	2682	A	P-O5'-C5'	-5.97	111.94	120.90
1	AA	1282	C	P-O3'-C3'	-5.97	111.24	120.20
22	BA	1326	U	N1-C1'-C2'	-5.97	103.05	112.00
53	CA	428	G	O3'-P-O5'	5.97	112.95	104.00
6	CF	49	TYR	N-CA-C	5.97	113.50	108.13
22	DA	629	G	P-O3'-C3'	-5.97	111.25	120.20
53	CA	240	G	P-O3'-C3'	-5.96	111.25	120.20
14	AN	90	GLY	N-CA-C	-5.96	106.18	111.67
22	BA	2517	C	O4'-C1'-N1	5.96	117.14	108.20
53	CA	705	G	P-O3'-C3'	-5.96	111.25	120.20
22	DA	1901	A	P-O3'-C3'	-5.96	111.26	120.20
22	DA	1683	U	P-O3'-C3'	-5.96	111.27	120.20
22	DA	460	A	P-O3'-C3'	-5.95	111.27	120.20
34	DM	108	VAL	CA-C-N	5.95	125.92	120.03
34	DM	108	VAL	C-N-CA	5.95	125.92	120.03
22	DA	2629	U	P-O3'-C3'	5.95	129.13	120.20
1	AA	641	U	P-O3'-C3'	5.95	129.12	120.20
22	DA	2217	G	P-O3'-C3'	-5.95	111.28	120.20
22	DA	2874	C	P-O3'-C3'	-5.94	111.29	120.20
22	DA	1626	A	P-O3'-C3'	5.94	129.11	120.20
53	CA	453	G	P-O3'-C3'	-5.94	111.30	120.20
22	BA	1920	C	N1-C1'-C2'	-5.93	103.10	112.00
22	DA	324	A	P-O3'-C3'	-5.93	111.30	120.20
22	BA	1809	A	P-O5'-C5'	-5.93	112.00	120.90
22	BA	2783	U	P-O5'-C5'	-5.93	112.01	120.90
22	BA	996	A	C2'-C3'-O3'	-5.93	104.81	113.70
22	DA	992	C	P-O3'-C3'	-5.93	111.31	120.20
22	DA	2199	A	P-O3'-C3'	-5.92	111.31	120.20
28	BG	82	PHE	N-CA-C	5.92	119.05	109.40
22	DA	222	A	P-O3'-C3'	5.92	129.08	120.20
22	BA	2880	C	P-O5'-C5'	-5.92	112.02	120.90
22	DA	1707	G	P-O3'-C3'	-5.92	111.32	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1066	C	N1-C1'-C2'	-5.92	103.13	112.00
22	BA	1417	C	P-O3'-C3'	-5.91	111.33	120.20
22	DA	2339	C	P-O3'-C3'	-5.91	111.34	120.20
22	BA	2352	A	O3'-P-O5'	-5.91	95.14	104.00
22	BA	241	A	P-O3'-C3'	5.91	129.06	120.20
22	DA	2603	G	P-O3'-C3'	-5.91	111.34	120.20
22	BA	336	C	P-O5'-C5'	-5.90	112.04	120.90
22	DA	243	U	N1-C1'-C2'	-5.90	103.15	112.00
1	AA	1256	A	P-O3'-C3'	5.90	129.05	120.20
1	AA	654	G	P-O3'-C3'	-5.90	111.35	120.20
49	B1	29	LYS	CA-C-N	5.90	125.44	119.19
49	B1	29	LYS	C-N-CA	5.90	125.44	119.19
22	DA	1347	A	P-O3'-C3'	-5.90	111.35	120.20
1	AA	1345	U	O4'-C1'-N1	5.89	117.04	108.20
2	AB	79	VAL	N-CA-C	-5.89	107.75	113.53
22	BA	531	C	O3'-P-O5'	-5.89	95.16	104.00
22	BA	765	C	P-O5'-C5'	-5.89	112.06	120.90
53	CA	498	A	P-O3'-C3'	-5.89	111.36	120.20
56	CP	22	ALA	N-CA-C	5.89	115.63	107.73
22	DA	1615	C	N1-C1'-C2'	5.89	122.84	114.00
25	BD	152	PRO	N-CA-C	-5.89	105.70	113.65
1	AA	754	C	N1-C1'-C2'	-5.89	103.17	112.00
22	BA	763	G	P-O3'-C3'	-5.89	111.37	120.20
22	BA	1627	G	P-O3'-C3'	-5.89	111.37	120.20
20	CT	33	LYS	N-CA-C	-5.89	104.78	111.14
22	DA	1981	A	P-O5'-C5'	-5.89	112.07	120.90
53	CA	1052	U	N1-C1'-C2'	-5.88	103.17	112.00
29	BH	45	GLU	N-CA-C	-5.88	106.75	114.04
22	DA	1816	C	N1-C1'-C2'	-5.88	103.18	112.00
22	DA	2714	G	P-O3'-C3'	-5.88	111.38	120.20
22	BA	2064	C	N1-C1'-C2'	-5.88	103.18	112.00
22	BA	227	A	C2'-C3'-O3'	5.88	118.32	109.50
22	BA	2258	C	P-O3'-C3'	5.88	129.02	120.20
22	DA	1569	A	P-O3'-C3'	-5.88	111.38	120.20
22	BA	1885	A	P-O3'-C3'	-5.87	111.39	120.20
22	DA	421	C	N1-C1'-C2'	5.87	120.81	112.00
22	DA	916	G	P-O3'-C3'	-5.87	111.39	120.20
22	DA	1400	U	N1-C1'-C2'	-5.86	103.21	112.00
1	AA	374	A	P-O3'-C3'	-5.86	111.41	120.20
1	AA	1162	C	P-O3'-C3'	-5.86	111.42	120.20
22	BA	1892	C	P-O5'-C5'	-5.86	112.12	120.90
22	BA	774	G	P-O3'-C3'	5.85	128.98	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
24	BC	242	HIS	CA-C-N	5.85	127.16	119.84
24	BC	242	HIS	C-N-CA	5.85	127.16	119.84
22	DA	1967	C	P-O3'-C3'	-5.85	111.42	120.20
22	BA	490	C	P-O5'-C5'	-5.85	112.13	120.90
22	BA	1942	C	N1-C1'-C2'	-5.85	103.23	112.00
22	BA	2507	C	O3'-P-O5'	-5.85	95.23	104.00
22	BA	1674	G	P-O3'-C3'	5.85	128.97	120.20
22	BA	620	G	O3'-P-O5'	5.84	112.77	104.00
22	BA	1662	U	P-O5'-C5'	-5.84	112.13	120.90
42	BU	46	LYS	CA-C-N	5.84	126.17	119.92
42	BU	46	LYS	C-N-CA	5.84	126.17	119.92
53	CA	316	C	P-O3'-C3'	-5.84	111.44	120.20
22	BA	765	C	P-O3'-C3'	-5.84	111.44	120.20
22	BA	2681	C	P-O3'-C3'	5.84	128.96	120.20
22	BA	2044	C	P-O3'-C3'	-5.84	111.45	120.20
34	DM	71	LYS	CA-C-N	5.84	127.14	119.84
34	DM	71	LYS	C-N-CA	5.84	127.14	119.84
1	AA	175	C	P-O3'-C3'	-5.83	111.45	120.20
22	BA	2733	A	P-O3'-C3'	-5.83	111.45	120.20
33	BL	40	SER	N-CA-C	-5.83	100.68	109.60
22	DA	2757	A	P-O3'-C3'	-5.83	111.45	120.20
1	AA	984	C	P-O3'-C3'	-5.83	111.45	120.20
22	DA	1787	A	P-O3'-C3'	-5.83	111.46	120.20
1	AA	513	C	P-O3'-C3'	-5.82	111.46	120.20
1	AA	564	C	P-O3'-C3'	-5.82	111.46	120.20
53	CA	961	U	N1-C1'-C2'	-5.82	105.27	114.00
28	BG	56	GLY	N-CA-C	-5.82	106.68	114.25
22	BA	531	C	O4'-C1'-N1	-5.82	99.47	108.20
22	BA	1110	G	P-O3'-C3'	5.82	128.93	120.20
22	BA	1996	C	P-O3'-C3'	5.82	128.93	120.20
22	DA	73	A	P-O3'-C3'	-5.82	111.48	120.20
22	BA	1828	G	P-O3'-C3'	5.81	128.92	120.20
53	CA	1395	C	N1-C1'-C2'	-5.81	103.28	112.00
42	BU	100	GLU	N-CA-C	5.81	118.39	111.71
11	AK	122	PRO	CA-C-N	5.81	125.74	119.76
11	AK	122	PRO	C-N-CA	5.81	125.74	119.76
22	BA	2071	A	P-O3'-C3'	5.80	128.90	120.20
53	CA	1152	A	P-O3'-C3'	-5.80	111.50	120.20
22	BA	91	A	P-O3'-C3'	5.80	128.90	120.20
22	BA	1945	G	P-O3'-C3'	-5.80	111.50	120.20
53	CA	184	G	P-O3'-C3'	-5.80	111.50	120.20
22	BA	781	A	P-O3'-C3'	5.79	128.89	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2492	U	P-O3'-C3'	-5.79	111.51	120.20
1	AA	486	U	P-O3'-C3'	-5.79	111.51	120.20
22	BA	1779	U	P-O5'-C5'	-5.79	112.21	120.90
22	BA	2850	A	P-O3'-C3'	-5.79	111.51	120.20
42	BU	82	VAL	N-CA-C	5.79	121.38	109.34
1	AA	596	A	P-O3'-C3'	-5.79	111.52	120.20
22	BA	489	G	P-O3'-C3'	5.79	128.88	120.20
22	DA	1954	G	P-O3'-C3'	5.78	128.88	120.20
22	DA	1716	U	N1-C1'-C2'	-5.78	105.33	114.00
22	BA	456	C	P-O5'-C5'	-5.78	112.23	120.90
22	BA	2832	U	O3'-P-O5'	-5.78	95.33	104.00
22	BA	1456	G	P-O3'-C3'	-5.78	111.54	120.20
22	BA	1126	A	P-O3'-C3'	5.77	128.86	120.20
2	AB	78	ALA	N-CA-C	-5.77	106.22	113.20
22	BA	2215	C	P-O5'-C5'	-5.77	112.24	120.90
22	BA	2392	A	P-O3'-C3'	-5.77	111.54	120.20
1	AA	1190	G	P-O3'-C3'	5.77	128.85	120.20
22	BA	35	G	P-O5'-C5'	-5.77	112.25	120.90
22	BA	921	C	P-O5'-C5'	-5.77	112.25	120.90
23	BB	45	A	P-O3'-C3'	-5.77	111.55	120.20
53	CA	1495	U	P-O3'-C3'	5.77	128.85	120.20
22	BA	1265	A	P-O3'-C3'	5.76	128.85	120.20
22	DA	2197	U	O3'-P-O5'	-5.76	95.35	104.00
1	AA	534	U	N1-C1'-C2'	-5.76	103.36	112.00
22	DA	1396	U	N1-C1'-C2'	5.76	120.64	112.00
53	CA	1066	C	N1-C1'-C2'	-5.76	103.36	112.00
22	BA	73	A	P-O3'-C3'	-5.75	111.57	120.20
22	BA	673	C	P-O5'-C5'	-5.75	112.27	120.90
53	CA	15	G	P-O3'-C3'	-5.75	111.57	120.20
22	BA	958	U	P-O3'-C3'	-5.75	111.58	120.20
1	AA	1401	G	P-O3'-C3'	-5.75	111.58	120.20
1	AA	511	C	N1-C1'-C2'	5.75	122.62	114.00
22	BA	539	G	P-O5'-C5'	-5.74	112.29	120.90
42	BU	5	ARG	N-CA-C	5.74	117.69	109.14
22	DA	1493	C	N1-C1'-C2'	5.74	120.61	112.00
22	BA	1965	C	P-O3'-C3'	-5.74	111.59	120.20
22	DA	958	U	P-O3'-C3'	-5.74	111.59	120.20
1	AA	884	U	P-O3'-C3'	5.74	128.80	120.20
22	BA	509	C	P-O3'-C3'	-5.74	111.60	120.20
53	CA	793	U	O3'-P-O5'	-5.73	95.40	104.00
1	AA	1476	A	P-O3'-C3'	-5.73	111.60	120.20
42	BU	56	GLY	N-CA-C	5.73	117.93	111.85

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1238	G	P-O3'-C3'	-5.73	111.61	120.20
22	DA	2712	C	P-O3'-C3'	5.73	128.79	120.20
22	BA	192	C	P-O5'-C5'	-5.72	112.32	120.90
22	BA	2756	U	O3'-P-O5'	5.72	112.58	104.00
53	CA	500	G	P-O3'-C3'	-5.72	111.62	120.20
22	DA	2259	U	N1-C1'-C2'	-5.72	103.42	112.00
1	AA	1087	G	P-O3'-C3'	-5.72	111.62	120.20
1	AA	1345	U	P-O3'-C3'	5.72	128.78	120.20
22	BA	996	A	P-O3'-C3'	-5.72	111.62	120.20
23	BB	40	U	P-O3'-C3'	5.72	128.78	120.20
22	BA	1286	A	P-O3'-C3'	5.72	128.78	120.20
22	DA	2286	G	P-O3'-C3'	5.72	128.78	120.20
53	CA	382	A	P-O3'-C3'	5.72	128.78	120.20
22	DA	628	G	P-O3'-C3'	-5.71	111.63	120.20
22	BA	2499	C	P-O5'-C5'	-5.71	112.33	120.90
1	AA	960	U	P-O3'-C3'	5.71	128.77	120.20
22	BA	1300	G	P-O3'-C3'	5.71	128.77	120.20
22	DA	407	G	P-O3'-C3'	-5.71	111.63	120.20
1	AA	1297	G	P-O3'-C3'	5.71	128.76	120.20
22	DA	397	U	N1-C1'-C2'	-5.71	103.44	112.00
1	AA	1322	C	P-O3'-C3'	5.71	128.76	120.20
22	BA	2506	U	N1-C1'-C2'	5.71	120.56	112.00
22	DA	1557	C	P-O3'-C3'	-5.71	111.64	120.20
23	BB	12	C	P-O3'-C3'	5.71	128.76	120.20
22	BA	1476	U	N1-C1'-C2'	-5.70	103.44	112.00
22	DA	336	C	P-O3'-C3'	-5.70	111.64	120.20
1	AA	961	U	P-O3'-C3'	-5.70	111.65	120.20
22	BA	1560	G	P-O3'-C3'	-5.70	111.65	120.20
53	CA	1230	C	P-O3'-C3'	-5.70	111.65	120.20
22	BA	2832	U	P-O3'-C3'	5.70	128.75	120.20
22	BA	14	A	P-O5'-C5'	-5.70	112.36	120.90
22	BA	2440	C	C3'-C2'-C1'	5.70	107.00	101.30
5	CE	78	GLY	N-CA-C	-5.70	106.31	115.08
22	DA	1602	U	N1-C1'-C2'	5.70	120.54	112.00
22	DA	2409	G	P-O3'-C3'	-5.70	111.66	120.20
31	BJ	38	GLY	N-CA-C	-5.69	107.39	115.30
1	AA	1047	G	OP2-P-O3'	5.69	125.08	108.00
1	AA	173	U	N1-C1'-C2'	5.69	122.53	114.00
22	DA	1980	G	P-O3'-C3'	5.69	128.73	120.20
22	BA	2611	C	P-O5'-C5'	-5.68	112.37	120.90
22	DA	2150	C	N1-C1'-C2'	-5.68	103.47	112.00
1	AA	129	A	P-O3'-C3'	5.68	128.72	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2346	A	P-O3'-C3'	5.68	128.72	120.20
22	DA	861	A	P-O3'-C3'	-5.68	111.68	120.20
22	BA	1653	G	O3'-P-O5'	5.68	112.52	104.00
22	DA	1455	G	P-O3'-C3'	-5.68	111.68	120.20
22	BA	1970	A	P-O3'-C3'	5.67	128.71	120.20
57	DB	40	U	P-O3'-C3'	5.67	128.71	120.20
53	CA	1143	G	P-O3'-C3'	-5.67	111.70	120.20
1	AA	85	U	P-O3'-C3'	5.67	128.70	120.20
22	BA	475	C	P-O5'-C5'	-5.66	112.41	120.90
1	AA	1068	G	P-O3'-C3'	-5.66	111.71	120.20
22	BA	1663	G	P-O5'-C5'	-5.66	112.41	120.90
22	BA	2092	U	OP2-P-O3'	5.66	124.97	108.00
22	BA	2335	A	C3'-C2'-C1'	5.66	106.95	101.30
22	DA	1612	C	N1-C1'-C2'	-5.66	103.52	112.00
22	DA	1654	A	C3'-C2'-C1'	5.66	106.96	101.30
22	BA	70	G	O3'-P-O5'	5.65	112.48	104.00
22	BA	2215	C	N1-C1'-C2'	-5.65	103.52	112.00
1	AA	965	U	N1-C1'-C2'	5.65	122.48	114.00
1	AA	1228	C	P-O3'-C3'	-5.65	111.73	120.20
22	BA	396	G	P-O5'-C5'	-5.65	112.43	120.90
25	BD	10	GLY	N-CA-C	5.65	126.56	113.18
22	BA	1237	A	P-O3'-C3'	5.64	128.67	120.20
22	BA	1437	C	P-O5'-C5'	-5.64	112.43	120.90
1	AA	485	U	P-O3'-C3'	5.64	128.66	120.20
1	AA	1394	A	P-O3'-C3'	5.64	128.66	120.20
22	BA	1289	C	P-O5'-C5'	-5.64	112.44	120.90
22	DA	777	G	P-O3'-C3'	-5.64	111.74	120.20
22	DA	2616	C	P-O3'-C3'	-5.64	111.74	120.20
22	BA	566	U	P-O3'-C3'	-5.64	111.74	120.20
22	BA	1012	U	O4'-C1'-N1	5.64	116.66	108.20
22	DA	1522	A	P-O3'-C3'	5.64	128.66	120.20
22	BA	753	A	P-O3'-C3'	-5.64	111.75	120.20
22	DA	1213	A	P-O3'-C3'	-5.64	111.75	120.20
22	DA	2023	C	N1-C1'-C2'	-5.64	103.55	112.00
22	DA	2406	A	P-O3'-C3'	5.64	128.66	120.20
1	AA	1320	C	P-O3'-C3'	-5.63	111.75	120.20
1	AA	1507	A	P-O3'-C3'	-5.63	111.75	120.20
1	AA	874	G	P-O3'-C3'	-5.63	111.75	120.20
53	CA	1184	G	P-O3'-C3'	-5.63	111.76	120.20
22	DA	672	C	P-O3'-C3'	-5.63	111.76	120.20
22	DA	1635	A	P-O5'-C5'	-5.62	112.47	120.90
22	BA	2543	G	P-O5'-C5'	-5.62	112.47	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CA	1147	C	N1-C1'-C2'	-5.62	103.57	112.00
22	DA	1993	U	N1-C1'-C2'	-5.62	103.57	112.00
22	DA	2382	G	P-O3'-C3'	5.62	128.63	120.20
22	BA	1635	A	P-O5'-C5'	-5.62	112.48	120.90
22	DA	1918	A	P-O3'-C3'	5.62	128.62	120.20
22	DA	2609	U	N1-C1'-C2'	5.62	122.42	114.00
22	BA	972	A	P-O3'-C3'	5.61	128.62	120.20
22	BA	2030	A	P-O3'-C3'	5.61	128.62	120.20
1	AA	273	U	O3'-P-O5'	-5.61	95.58	104.00
22	BA	1240	U	N1-C1'-C2'	5.61	120.42	112.00
53	CA	979	C	N1-C1'-C2'	-5.61	103.58	112.00
22	DA	964	C	N1-C1'-C2'	-5.61	103.58	112.00
22	DA	915	C	P-O3'-C3'	-5.61	111.79	120.20
22	BA	1558	C	P-O3'-C3'	5.61	128.61	120.20
22	DA	1717	A	P-O3'-C3'	-5.61	111.79	120.20
53	CA	1348	U	N1-C1'-C2'	-5.60	103.60	112.00
22	DA	530	G	P-O3'-C3'	-5.60	111.81	120.20
1	AA	536	C	N1-C1'-C2'	-5.59	103.61	112.00
22	BA	790	U	N1-C1'-C2'	-5.59	103.61	112.00
1	AA	95	C	P-O3'-C3'	-5.59	111.81	120.20
22	BA	794	A	P-O5'-C5'	-5.59	112.51	120.90
22	BA	1127	A	P-O3'-C3'	-5.59	111.81	120.20
53	CA	482	A	P-O3'-C3'	-5.59	111.81	120.20
22	BA	117	G	P-O5'-C5'	-5.59	112.52	120.90
22	DA	1733	G	P-O3'-C3'	-5.59	111.82	120.20
58	DF	137	PHE	CA-C-N	5.59	126.83	119.84
58	DF	137	PHE	C-N-CA	5.59	126.83	119.84
22	BA	681	G	P-O5'-C5'	-5.59	112.52	120.90
22	BA	1273	U	P-O5'-C5'	-5.59	112.52	120.90
22	DA	1993	U	P-O3'-C3'	-5.59	111.82	120.20
53	CA	511	C	P-O3'-C3'	5.58	128.58	120.20
37	BP	77	SER	CA-C-N	5.58	125.69	119.32
37	BP	77	SER	C-N-CA	5.58	125.69	119.32
22	BA	2064	C	P-O5'-C5'	-5.58	112.53	120.90
26	DE	176	ASP	CA-C-N	5.58	125.29	119.82
26	DE	176	ASP	C-N-CA	5.58	125.29	119.82
22	DA	1568	G	P-O3'-C3'	-5.58	111.83	120.20
52	B4	4	ARG	N-CA-C	5.58	122.68	110.80
22	DA	1136	G	P-O3'-C3'	-5.58	111.83	120.20
22	DA	2567	G	P-O3'-C3'	-5.58	111.83	120.20
22	BA	946	C	C3'-C2'-C1'	5.57	106.87	101.30
22	BA	1289	C	P-O3'-C3'	-5.57	111.84	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2380	C	P-O5'-C5'	-5.57	112.54	120.90
22	BA	2687	U	P-O5'-C5'	-5.57	112.54	120.90
22	DA	1649	G	P-O3'-C3'	-5.57	111.84	120.20
22	BA	435	C	P-O5'-C5'	-5.57	112.54	120.90
53	CA	13	U	N1-C1'-C2'	5.57	122.36	114.00
53	CA	962	C	N1-C1'-C2'	-5.57	103.64	112.00
5	AE	131	ASN	CA-C-N	5.57	126.80	119.84
5	AE	131	ASN	C-N-CA	5.57	126.80	119.84
22	BA	1538	G	P-O3'-C3'	-5.57	111.85	120.20
1	AA	1286	U	N1-C1'-C2'	5.57	120.35	112.00
22	DA	1650	A	P-O3'-C3'	-5.57	111.85	120.20
22	BA	2021	C	O4'-C1'-N1	5.56	116.55	108.20
23	BB	57	A	P-O5'-C5'	-5.56	112.56	120.90
22	BA	1022	G	P-O3'-C3'	5.56	128.54	120.20
22	BA	2850	A	P-O5'-C5'	-5.56	112.56	120.90
50	B2	30	VAL	N-CA-C	-5.56	105.09	110.42
53	CA	1398	A	P-O3'-C3'	-5.55	111.87	120.20
1	AA	1124	G	P-O3'-C3'	5.55	128.53	120.20
22	BA	1490	A	P-O3'-C3'	5.55	128.53	120.20
53	CA	517	G	P-O3'-C3'	5.55	128.53	120.20
53	CA	536	C	P-O3'-C3'	-5.55	111.87	120.20
22	DA	230	G	P-O3'-C3'	-5.55	111.87	120.20
23	BB	108	A	P-O3'-C3'	5.55	128.52	120.20
53	CA	1227	A	P-O3'-C3'	5.55	128.52	120.20
22	DA	1289	C	P-O3'-C3'	-5.55	111.88	120.20
22	BA	1985	C	P-O5'-C5'	-5.55	112.58	120.90
22	DA	1135	C	N1-C1'-C2'	-5.55	103.68	112.00
53	CA	536	C	N1-C1'-C2'	-5.54	103.68	112.00
22	BA	1786	A	O4'-C1'-N9	5.54	116.51	108.20
34	BM	76	LYS	CA-C-N	5.54	126.77	119.84
34	BM	76	LYS	C-N-CA	5.54	126.77	119.84
22	BA	1968	G	P-O5'-C5'	-5.54	112.59	120.90
22	DA	91	A	P-O3'-C3'	5.54	128.50	120.20
22	DA	1941	C	P-O3'-C3'	-5.54	111.89	120.20
1	AA	121	U	N1-C1'-C2'	-5.53	105.70	114.00
22	BA	2493	U	P-O3'-C3'	-5.53	111.90	120.20
22	BA	2029	G	P-O3'-C3'	-5.53	111.90	120.20
53	CA	282	A	P-O3'-C3'	-5.53	111.91	120.20
23	BB	48	U	P-O5'-C5'	-5.53	112.61	120.90
53	CA	388	G	O3'-P-O5'	-5.53	95.71	104.00
22	BA	2821	A	P-O3'-C3'	-5.52	111.92	120.20
53	CA	884	U	P-O3'-C3'	5.52	128.48	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	2656	U	N1-C1'-C2'	-5.52	103.72	112.00
22	BA	566	U	P-O5'-C5'	-5.52	112.62	120.90
22	DA	1272	A	P-O3'-C3'	5.51	128.47	120.20
1	AA	875	U	N1-C1'-C2'	-5.51	103.73	112.00
50	B2	38	GLY	N-CA-C	-5.51	107.43	115.63
22	DA	2493	U	N1-C1'-C2'	-5.51	103.74	112.00
22	BA	2491	U	P-O5'-C5'	-5.50	112.64	120.90
22	BA	2777	G	P-O3'-C3'	-5.50	111.94	120.20
22	DA	353	C	P-O3'-C3'	5.50	128.45	120.20
1	AA	575	G	P-O3'-C3'	5.50	128.45	120.20
1	AA	965	U	P-O3'-C3'	5.50	128.44	120.20
22	DA	1498	C	P-O3'-C3'	-5.50	111.96	120.20
20	AT	70	LYS	N-CA-C	-5.49	105.21	111.14
22	BA	645	C	P-O3'-C3'	5.49	128.44	120.20
22	BA	1993	U	C3'-C2'-C1'	5.49	106.79	101.30
22	BA	2629	U	N1-C1'-C2'	5.49	122.24	114.00
22	DA	1810	A	P-O3'-C3'	-5.49	111.96	120.20
22	BA	2051	A	P-O3'-C3'	5.49	128.43	120.20
53	CA	1507	A	P-O3'-C3'	-5.49	111.97	120.20
22	DA	1915	U	N1-C1'-C2'	-5.49	103.77	112.00
22	DA	206	U	P-O3'-C3'	-5.49	111.97	120.20
22	BA	398	C	P-O5'-C5'	-5.48	112.67	120.90
21	AU	33	ARG	N-CA-C	5.48	114.79	108.49
58	DF	177	ARG	CA-C-N	-5.48	111.84	121.70
58	DF	177	ARG	C-N-CA	-5.48	111.84	121.70
22	BA	395	U	N1-C1'-C2'	5.47	122.21	114.00
22	BA	2010	G	O3'-P-O5'	-5.47	95.79	104.00
22	BA	1981	A	P-O3'-C3'	-5.47	111.99	120.20
22	BA	918	A	P-O5'-C5'	-5.47	112.70	120.90
22	BA	1838	C	P-O3'-C3'	5.47	128.41	120.20
22	BA	1865	U	P-O3'-C3'	5.47	128.41	120.20
22	DA	1674	G	P-O3'-C3'	5.47	128.41	120.20
1	AA	116	A	C2'-C3'-O3'	-5.47	105.50	113.70
44	BW	63	ASP	N-CA-C	5.47	118.16	110.23
22	BA	2423	U	N1-C1'-C2'	5.46	120.20	112.00
33	BL	61	LEU	CA-C-N	5.46	125.66	120.31
33	BL	61	LEU	C-N-CA	5.46	125.66	120.31
22	DA	1304	A	P-O3'-C3'	-5.46	112.00	120.20
22	DA	1811	G	P-O3'-C3'	-5.46	112.00	120.20
22	DA	2683	C	P-O3'-C3'	-5.46	112.00	120.20
22	BA	620	G	P-O3'-C3'	5.46	128.39	120.20
22	BA	1953	A	P-O5'-C5'	-5.46	112.71	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CA	722	G	P-O3'-C3'	-5.46	112.01	120.20
33	BL	105	ILE	N-CA-C	5.46	116.62	109.58
22	DA	2895	G	P-O3'-C3'	-5.46	112.01	120.20
22	BA	2806	C	O3'-P-O5'	-5.46	95.81	104.00
53	CA	247	G	P-O3'-C3'	-5.46	112.01	120.20
53	CA	1160	G	P-O3'-C3'	-5.46	112.01	120.20
22	BA	1304	A	P-O5'-C5'	-5.46	112.72	120.90
22	BA	2689	U	O3'-P-O5'	-5.46	95.81	104.00
43	BV	29	ILE	N-CA-C	5.46	116.56	108.65
22	BA	656	G	P-O3'-C3'	-5.46	112.02	120.20
24	BC	163	ILE	CB-CA-C	-5.46	105.34	111.23
1	AA	110	C	N1-C1'-C2'	-5.45	103.82	112.00
1	AA	934	C	P-O3'-C3'	5.45	128.38	120.20
5	AE	138	ALA	N-CA-C	-5.45	105.34	111.28
22	BA	197	A	P-O3'-C3'	-5.45	112.03	120.20
22	BA	2447	G	P-O3'-C3'	5.45	128.38	120.20
22	BA	726	G	O3'-P-O5'	5.45	112.17	104.00
53	CA	1282	C	N1-C1'-C2'	-5.45	103.83	112.00
1	AA	531	U	P-O3'-C3'	5.45	128.37	120.20
22	DA	2387	U	N1-C1'-C2'	-5.44	103.83	112.00
22	BA	1956	U	P-O5'-C5'	-5.44	112.74	120.90
22	DA	532	A	P-O3'-C3'	5.44	128.36	120.20
22	DA	2572	A	P-O3'-C3'	5.44	128.36	120.20
53	CA	793	U	P-O3'-C3'	-5.44	112.04	120.20
22	DA	76	C	N1-C1'-C2'	-5.44	103.85	112.00
22	BA	637	A	O3'-P-O5'	5.43	112.15	104.00
22	BA	2283	C	C2'-C3'-O3'	-5.43	105.55	113.70
1	AA	47	C	N1-C1'-C2'	5.43	122.15	114.00
1	AA	1304	G	P-O3'-C3'	-5.43	112.06	120.20
22	BA	119	A	P-O3'-C3'	5.43	128.34	120.20
22	BA	765	C	N1-C1'-C2'	-5.43	103.86	112.00
1	AA	411	A	P-O3'-C3'	5.42	128.34	120.20
53	CA	96	U	P-O3'-C3'	-5.42	112.06	120.20
53	CA	733	G	P-O3'-C3'	5.42	128.34	120.20
22	DA	480	A	P-O3'-C3'	-5.42	112.06	120.20
22	BA	421	C	C2'-C3'-O3'	5.42	117.63	109.50
22	BA	656	G	P-O5'-C5'	-5.42	112.77	120.90
22	BA	2281	A	P-O5'-C5'	-5.42	112.77	120.90
22	BA	2337	G	P-O3'-C3'	-5.42	112.07	120.20
22	DA	747	U	N1-C1'-C2'	-5.42	105.87	114.00
1	AA	497	G	P-O3'-C3'	-5.42	112.08	120.20
22	DA	1333	G	P-O3'-C3'	-5.42	112.07	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
45	DX	29	LEU	N-CA-C	5.42	112.89	108.07
1	AA	487	A	P-O3'-C3'	-5.41	112.08	120.20
47	DZ	33	HIS	N-CA-C	-5.41	106.75	113.19
22	DA	2299	U	P-O3'-C3'	-5.41	112.09	120.20
22	BA	2566	A	P-O3'-C3'	5.41	128.31	120.20
1	AA	275	G	P-O3'-C3'	-5.40	112.09	120.20
53	CA	253	A	P-O3'-C3'	-5.40	112.09	120.20
22	BA	2037	A	P-O5'-C5'	-5.40	112.80	120.90
53	CA	891	U	P-O3'-C3'	-5.40	112.10	120.20
22	DA	2034	U	P-O3'-C3'	-5.40	112.09	120.20
22	BA	588	U	C3'-C2'-C1'	5.40	106.70	101.30
53	CA	1499	A	P-O3'-C3'	-5.40	112.10	120.20
22	BA	233	A	P-O3'-C3'	-5.40	112.11	120.20
43	BV	4	ILE	CB-CA-C	-5.40	105.10	111.09
1	AA	1101	A	P-O3'-C3'	5.39	128.29	120.20
22	BA	916	G	P-O5'-C5'	-5.39	112.81	120.90
53	CA	519	C	N1-C1'-C2'	-5.39	103.91	112.00
22	DA	673	C	P-O3'-C3'	-5.39	112.11	120.20
22	DA	1027	A	P-O3'-C3'	-5.39	112.11	120.20
1	AA	74	A	P-O3'-C3'	-5.39	112.11	120.20
22	BA	481	G	O3'-P-O5'	-5.39	95.91	104.00
22	BA	2638	G	P-O3'-C3'	5.39	128.29	120.20
53	CA	173	U	O3'-P-O5'	-5.39	95.91	104.00
22	DA	129	C	P-O3'-C3'	-5.39	112.12	120.20
22	DA	802	A	P-O3'-C3'	-5.39	112.12	120.20
22	BA	988	A	P-O3'-C3'	5.39	128.28	120.20
22	DA	397	U	P-O3'-C3'	-5.39	112.12	120.20
22	DA	2225	A	O3'-P-O5'	5.39	112.08	104.00
22	BA	2492	U	P-O5'-C5'	-5.38	112.82	120.90
22	BA	1476	U	C3'-C2'-C1'	5.38	106.68	101.30
1	AA	935	A	C3'-C2'-C1'	5.38	106.68	101.30
22	BA	2023	C	P-O3'-C3'	-5.38	112.13	120.20
22	DA	638	G	P-O3'-C3'	-5.38	112.13	120.20
22	DA	671	C	N1-C1'-C2'	-5.38	105.93	114.00
22	DA	2836	U	N1-C1'-C2'	-5.38	103.93	112.00
22	BA	1341	G	P-O5'-C5'	-5.38	112.83	120.90
3	AC	5	HIS	CA-C-N	5.38	125.45	119.32
3	AC	5	HIS	C-N-CA	5.38	125.45	119.32
22	DA	1647	U	P-O3'-C3'	5.38	128.27	120.20
22	BA	333	G	P-O5'-C5'	-5.38	112.83	120.90
22	BA	2226	C	P-O3'-C3'	-5.38	112.14	120.20
22	BA	2293	G	P-O5'-C5'	-5.38	112.84	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	2342	C	P-O5'-C5'	-5.38	112.84	120.90
33	BL	35	HIS	N-CA-C	5.38	118.94	107.70
22	DA	2850	A	P-O3'-C3'	-5.38	112.14	120.20
22	BA	1707	G	P-O3'-C3'	-5.38	112.14	120.20
1	AA	913	A	P-O3'-C3'	5.37	128.26	120.20
22	BA	803	U	O3'-P-O5'	-5.37	95.94	104.00
53	CA	755	G	P-O3'-C3'	-5.37	112.14	120.20
22	BA	119	A	O3'-P-O5'	5.37	112.05	104.00
22	BA	2582	G	P-O3'-C3'	-5.37	112.15	120.20
22	DA	1064	C	P-O3'-C3'	-5.37	112.15	120.20
22	DA	1848	A	P-O3'-C3'	-5.37	112.15	120.20
22	BA	704	G	C2'-C3'-O3'	5.36	117.55	109.50
38	DQ	95	ALA	N-CA-C	-5.36	106.32	112.92
22	BA	1281	G	P-O5'-C5'	-5.36	112.86	120.90
22	DA	25	U	N1-C1'-C2'	5.36	120.04	112.00
22	BA	674	G	P-O5'-C5'	-5.36	112.86	120.90
22	BA	1758	U	N1-C1'-C2'	5.36	122.03	114.00
22	BA	2307	G	P-O3'-C3'	5.36	128.23	120.20
22	BA	454	A	C4'-C3'-C2'	5.35	107.95	102.60
35	DN	23	ASN	N-CA-C	-5.35	107.40	114.04
22	BA	421	C	N1-C1'-C2'	5.35	122.02	114.00
22	BA	805	G	C4'-C3'-O3'	-5.35	101.37	109.40
3	CC	107	LYS	CA-C-N	5.35	124.96	119.56
3	CC	107	LYS	C-N-CA	5.35	124.96	119.56
22	BA	1665	A	P-O3'-C3'	-5.35	112.18	120.20
1	AA	366	A	P-O3'-C3'	5.34	128.22	120.20
31	BJ	106	LYS	N-CA-C	-5.34	105.14	110.97
45	DX	19	HIS	N-CA-C	-5.34	103.64	110.53
22	BA	2714	G	P-O3'-C3'	-5.34	112.19	120.20
22	DA	2226	C	C3'-C2'-C1'	5.34	106.64	101.30
1	AA	423	G	C3'-C2'-C1'	5.34	106.64	101.30
22	BA	1499	C	C3'-C2'-C1'	5.33	106.63	101.30
22	BA	1254	A	C3'-C2'-C1'	5.33	106.63	101.30
1	AA	559	A	P-O3'-C3'	5.33	128.19	120.20
22	BA	1817	G	P-O3'-C3'	-5.33	112.21	120.20
22	DA	2150	C	P-O3'-C3'	-5.33	112.21	120.20
22	DA	2752	C	N1-C1'-C2'	-5.33	104.01	112.00
22	BA	34	U	P-O3'-C3'	5.33	128.19	120.20
22	DA	2136	G	P-O3'-C3'	-5.32	112.22	120.20
1	AA	889	A	P-O3'-C3'	5.32	128.18	120.20
22	BA	1121	C	P-O5'-C5'	-5.32	112.92	120.90
22	DA	669	G	P-O3'-C3'	5.32	128.18	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	1739	A	P-O3'-C3'	-5.32	112.22	120.20
22	DA	1803	A	P-O3'-C3'	-5.32	112.22	120.20
22	BA	63	A	P-O3'-C3'	-5.32	112.23	120.20
53	CA	381	C	N1-C1'-C2'	5.32	119.97	112.00
22	DA	531	C	O3'-P-O5'	-5.32	96.03	104.00
22	DA	1399	C	P-O3'-C3'	-5.31	112.23	120.20
22	BA	1440	U	O3'-P-O5'	-5.31	96.04	104.00
4	CD	20	LEU	N-CA-C	-5.31	103.34	110.24
22	BA	2287	A	O3'-P-O5'	-5.31	96.04	104.00
22	BA	2504	U	C2'-C3'-O3'	-5.31	105.74	113.70
40	BS	4	ILE	N-CA-C	5.30	116.34	108.65
22	DA	87	U	P-O3'-C3'	-5.30	112.25	120.20
31	BJ	112	GLY	CA-C-N	5.30	126.47	119.84
31	BJ	112	GLY	C-N-CA	5.30	126.47	119.84
23	BB	89	U	P-O5'-C5'	-5.30	112.95	120.90
37	DP	60	VAL	N-CA-C	5.30	114.42	106.42
1	AA	1436	U	P-O5'-C5'	-5.30	112.95	120.90
39	BR	50	GLY	N-CA-C	-5.30	106.23	112.64
22	BA	915	C	C2'-C3'-O3'	-5.29	105.76	113.70
22	BA	450	G	P-O5'-C5'	-5.29	112.96	120.90
22	BA	1951	U	P-O5'-C5'	-5.29	112.96	120.90
53	CA	567	G	C3'-C2'-C1'	5.29	106.59	101.30
22	BA	1808	A	O3'-P-O5'	-5.29	96.06	104.00
53	CA	914	A	C3'-C2'-C1'	5.29	106.59	101.30
22	DA	1141	U	P-O3'-C3'	5.29	128.13	120.20
22	BA	2503	A	P-O5'-C5'	5.28	128.82	120.90
22	BA	333	G	P-O3'-C3'	-5.28	112.28	120.20
22	BA	2033	A	O3'-P-O5'	-5.28	96.08	104.00
22	BA	2036	C	P-O3'-C3'	-5.28	112.28	120.20
35	DN	54	LEU	N-CA-C	-5.28	107.21	113.97
53	CA	547	A	P-O3'-C3'	5.28	128.12	120.20
1	AA	247	G	P-O3'-C3'	-5.28	112.28	120.20
22	BA	2778	A	O3'-P-O5'	-5.28	96.08	104.00
52	B4	30	GLU	CA-C-N	5.28	125.08	119.28
52	B4	30	GLU	C-N-CA	5.28	125.08	119.28
23	BB	88	C	P-O5'-C5'	-5.27	112.99	120.90
23	BB	90	C	P-O3'-C3'	-5.27	112.30	120.20
22	DA	2147	A	P-O3'-C3'	-5.27	112.30	120.20
22	BA	2347	C	C3'-C2'-C1'	5.27	106.57	101.30
22	BA	2093	G	P-O3'-C3'	-5.27	112.30	120.20
22	BA	777	G	P-O3'-C3'	-5.26	112.30	120.20
22	DA	1799	G	P-O3'-C3'	5.26	128.09	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
42	DU	91	LYS	N-CA-C	-5.26	106.99	113.41
1	AA	243	A	P-O3'-C3'	5.26	128.09	120.20
28	DG	6	ALA	CA-C-N	5.26	125.96	120.12
28	DG	6	ALA	C-N-CA	5.26	125.96	120.12
37	DP	10	GLU	N-CA-C	-5.26	106.93	113.19
22	DA	49	A	P-O3'-C3'	5.26	128.09	120.20
1	AA	115	G	P-O3'-C3'	5.26	128.08	120.20
28	BG	140	ILE	N-CA-C	-5.26	104.63	110.62
1	AA	267	C	C3'-C2'-C1'	5.25	106.55	101.30
22	DA	765	C	C3'-C2'-C1'	5.25	106.55	101.30
23	BB	90	C	P-O5'-C5'	-5.25	113.03	120.90
22	DA	959	A	C3'-C2'-C1'	5.25	106.55	101.30
1	AA	84	U	N1-C1'-C2'	5.25	119.87	112.00
23	BB	53	A	P-O5'-C5'	-5.25	113.03	120.90
53	CA	73	C	N1-C1'-C2'	-5.25	104.13	112.00
22	BA	1700	A	P-O3'-C3'	-5.24	112.33	120.20
22	BA	2808	G	O3'-P-O5'	-5.24	96.14	104.00
1	AA	85	U	N1-C1'-C2'	5.24	121.86	114.00
22	BA	1131	G	P-O5'-C5'	-5.24	113.04	120.90
22	BA	2554	U	O4'-C1'-N1	-5.24	100.64	108.50
22	DA	2498	C	P-O3'-C3'	-5.24	112.34	120.20
1	AA	1066	C	P-O3'-C3'	-5.24	112.34	120.20
41	BT	85	VAL	N-CA-C	5.24	116.52	112.12
22	BA	2750	A	C4'-C3'-C2'	5.23	107.83	102.60
53	CA	885	G	P-O3'-C3'	-5.23	112.35	120.20
1	AA	389	A	P-O3'-C3'	-5.23	112.35	120.20
22	BA	1494	A	P-O3'-C3'	-5.23	112.35	120.20
1	AA	641	U	N1-C1'-C2'	5.23	121.85	114.00
22	BA	1461	C	P-O3'-C3'	-5.23	112.35	120.20
22	DA	704	G	P-O3'-C3'	5.23	128.05	120.20
53	CA	210	C	N1-C1'-C2'	5.23	119.84	112.00
22	BA	388	G	P-O3'-C3'	-5.23	112.36	120.20
8	AH	47	ASP	N-CA-C	5.23	116.38	108.07
22	BA	958	U	N1-C1'-C2'	-5.23	104.16	112.00
22	BA	2249	U	C4'-C3'-C2'	5.22	107.82	102.60
22	DA	2450	A	P-O3'-C3'	-5.22	112.36	120.20
8	AH	100	ILE	N-CA-C	5.22	115.19	108.82
53	CA	654	G	C3'-C2'-C1'	5.22	106.52	101.30
22	BA	463	G	P-O5'-C5'	-5.22	113.08	120.90
22	BA	2038	G	P-O5'-C5'	-5.22	113.07	120.90
53	CA	1087	G	P-O3'-C3'	-5.22	112.38	120.20
22	DA	2282	G	P-O3'-C3'	5.21	128.02	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	BY	58	ASN	N-CA-C	-5.21	106.32	113.30
22	DA	1982	U	P-O3'-C3'	-5.21	112.38	120.20
3	AC	71	ARG	CA-C-N	5.21	125.26	119.32
3	AC	71	ARG	C-N-CA	5.21	125.26	119.32
22	DA	783	A	C3'-C2'-C1'	5.21	106.51	101.30
22	DA	964	C	C3'-C2'-C1'	5.21	106.51	101.30
22	DA	1786	A	P-O5'-C5'	-5.21	113.09	120.90
22	DA	2504	U	C2'-C3'-O3'	-5.21	105.89	113.70
22	BA	177	G	P-O3'-C3'	5.21	128.01	120.20
22	BA	1254	A	P-O5'-C5'	-5.21	113.09	120.90
44	BW	24	ARG	N-CA-C	-5.21	103.47	110.24
22	DA	1695	G	P-O3'-C3'	-5.21	112.39	120.20
53	CA	803	G	C3'-C2'-C1'	5.20	106.50	101.30
22	BA	434	U	P-O3'-C3'	5.20	128.00	120.20
22	BA	1234	U	P-O3'-C3'	-5.20	112.40	120.20
22	DA	913	U	P-O3'-C3'	5.20	128.00	120.20
22	BA	763	G	C3'-C2'-C1'	5.20	106.50	101.30
53	CA	92	U	P-O3'-C3'	-5.20	112.40	120.20
1	AA	1129	C	P-O3'-C3'	5.20	128.00	120.20
22	BA	1313	U	P-O5'-C5'	-5.20	113.10	120.90
22	DA	777	G	N9-C1'-C2'	-5.20	104.20	112.00
53	CA	802	A	P-O3'-C3'	5.20	127.99	120.20
22	DA	1460	U	P-O3'-C3'	5.20	127.99	120.20
1	AA	122	G	N9-C1'-C2'	-5.19	104.21	112.00
22	BA	1992	G	C4'-C3'-C2'	5.19	107.79	102.60
22	BA	830	G	P-O5'-C5'	-5.19	113.11	120.90
22	BA	1493	C	P-O3'-C3'	5.19	127.99	120.20
22	BA	2347	C	P-O3'-C3'	-5.19	112.41	120.20
22	DA	1247	A	P-O3'-C3'	5.19	127.99	120.20
22	DA	2836	U	P-O3'-C3'	-5.19	112.42	120.20
22	BA	1267	U	N1-C1'-C2'	-5.19	104.22	112.00
22	DA	2582	G	P-O3'-C3'	-5.19	112.42	120.20
11	AK	89	GLY	CA-C-N	5.19	125.92	120.11
11	AK	89	GLY	C-N-CA	5.19	125.92	120.11
1	AA	1472	U	P-O5'-C5'	-5.18	113.12	120.90
22	BA	244	A	O3'-P-O5'	-5.18	96.22	104.00
22	BA	1429	G	P-O3'-C3'	-5.18	112.42	120.20
22	BA	2093	G	N9-C1'-C2'	-5.18	104.22	112.00
2	CB	10	LYS	N-CA-C	-5.18	105.14	113.28
22	BA	1420	A	P-O5'-C5'	-5.18	113.13	120.90
24	BC	12	ARG	N-CA-C	-5.18	106.29	113.18
31	BJ	72	LYS	N-CA-C	5.18	117.81	110.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
53	CA	979	C	P-O3'-C3'	-5.18	112.43	120.20
22	BA	2063	C	N1-C1'-C2'	-5.18	104.23	112.00
22	BA	2250	G	P-O5'-C5'	-5.18	113.13	120.90
22	BA	588	U	N1-C1'-C2'	-5.18	104.23	112.00
22	BA	913	U	P-O3'-C3'	5.18	127.97	120.20
39	BR	44	GLY	N-CA-C	-5.18	106.60	115.61
22	DA	2239	G	P-O3'-C3'	-5.18	112.44	120.20
40	BS	20	VAL	N-CA-C	-5.17	105.45	110.42
45	BX	54	GLY	N-CA-C	-5.17	106.52	112.83
22	DA	1430	G	C3'-C2'-C1'	5.17	106.47	101.30
22	BA	1675	C	P-O3'-C3'	-5.17	112.44	120.20
1	AA	1055	A	P-O3'-C3'	-5.17	112.45	120.20
2	CB	104	LYS	N-CA-C	-5.17	106.23	112.54
1	AA	199	A	C3'-C2'-C1'	5.17	106.47	101.30
22	BA	2259	U	C2'-C3'-O3'	-5.17	105.95	113.70
44	BW	21	GLY	N-CA-C	-5.17	104.29	112.66
22	DA	1635	A	P-O3'-C3'	-5.17	112.45	120.20
35	BN	101	GLY	N-CA-C	5.17	125.42	113.18
22	BA	996	A	C3'-C2'-C1'	5.16	106.46	101.30
22	BA	1230	A	O3'-P-O5'	-5.16	96.26	104.00
50	B2	45	SER	N-CA-C	5.16	114.85	108.19
22	DA	476	G	P-O3'-C3'	-5.16	112.45	120.20
53	CA	84	U	N1-C1'-C2'	5.16	119.74	112.00
22	DA	1707	G	P-O5'-C5'	-5.16	113.16	120.90
1	AA	686	U	N1-C1'-C2'	5.16	119.74	112.00
3	AC	199	VAL	N-CA-C	5.16	116.15	108.46
42	BU	78	LYS	N-CA-C	5.16	115.98	108.14
22	DA	2214	C	P-O3'-C3'	-5.16	112.46	120.20
22	BA	199	A	P-O3'-C3'	5.16	127.94	120.20
1	AA	1348	U	P-O3'-C3'	-5.16	112.47	120.20
22	BA	2715	C	P-O3'-C3'	-5.16	112.47	120.20
22	BA	229	C	C3'-C2'-C1'	5.15	106.45	101.30
22	BA	1996	C	N1-C1'-C2'	5.15	121.73	114.00
53	CA	511	C	N1-C1'-C2'	5.15	121.73	114.00
22	DA	421	C	P-O3'-C3'	5.15	127.93	120.20
22	BA	2797	U	P-O3'-C3'	5.15	127.92	120.20
58	DF	77	LYS	N-CA-C	-5.15	106.54	114.16
53	CA	85	U	N1-C1'-C2'	5.15	121.72	114.00
1	AA	567	G	C2'-C3'-O3'	-5.15	105.98	113.70
22	BA	1324	G	O4'-C1'-N9	5.15	115.92	108.20
22	BA	103	A	P-O3'-C3'	-5.14	112.48	120.20
22	BA	1734	G	P-O3'-C3'	-5.14	112.48	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	BV	89	ILE	CB-CA-C	-5.14	102.85	111.29
22	DA	670	A	P-O3'-C3'	5.14	127.92	120.20
22	DA	1398	C	P-O3'-C3'	-5.14	112.48	120.20
22	BA	2321	U	P-O3'-C3'	-5.14	112.48	120.20
38	BQ	41	ALA	N-CA-C	-5.14	105.67	111.28
22	DA	2520	C	C3'-C2'-C1'	5.14	106.44	101.30
1	AA	1380	U	P-O3'-C3'	5.14	127.91	120.20
22	BA	127	A	P-O5'-C5'	-5.14	113.19	120.90
57	DB	24	G	P-O3'-C3'	5.14	127.91	120.20
22	BA	2450	A	C3'-C2'-C1'	5.13	106.44	101.30
1	AA	245	U	P-O3'-C3'	-5.13	112.50	120.20
1	AA	891	U	P-O5'-C5'	-5.13	113.20	120.90
22	BA	2275	C	N1-C1'-C2'	5.13	121.70	114.00
24	BC	234	GLY	N-CA-C	5.13	122.51	115.27
22	DA	229	C	N1-C1'-C2'	-5.13	104.30	112.00
22	DA	449	A	C3'-C2'-C1'	5.13	106.43	101.30
22	DA	1063	G	P-O3'-C3'	-5.13	112.50	120.20
22	BA	1499	C	P-O3'-C3'	-5.13	112.50	120.20
22	BA	1615	C	P-O3'-C3'	5.13	127.89	120.20
1	AA	654	G	C3'-C2'-C1'	5.13	106.43	101.30
22	BA	1326	U	P-O5'-C5'	-5.13	113.21	120.90
10	CJ	40	ILE	CA-C-N	5.13	126.25	119.84
10	CJ	40	ILE	C-N-CA	5.13	126.25	119.84
22	DA	2646	C	P-O5'-C5'	-5.13	113.21	120.90
53	CA	1505	G	C3'-C2'-C1'	5.13	106.43	101.30
30	BI	72	THR	CA-C-N	5.12	125.66	120.38
30	BI	72	THR	C-N-CA	5.12	125.66	120.38
51	B3	61	LEU	CA-C-N	5.12	124.74	119.56
51	B3	61	LEU	C-N-CA	5.12	124.74	119.56
22	DA	2874	C	N1-C1'-C2'	-5.12	104.31	112.00
22	BA	482	A	P-O5'-C5'	-5.12	113.21	120.90
41	BT	29	THR	N-CA-C	5.12	121.71	110.80
22	DA	618	G	P-O3'-C3'	-5.12	112.51	120.20
22	DA	1079	C	N1-C1'-C2'	-5.12	104.32	112.00
1	AA	1496	C	P-O3'-C3'	-5.12	112.52	120.20
22	BA	491	G	P-O3'-C3'	-5.12	112.52	120.20
22	BA	78	U	P-O5'-C5'	-5.12	113.22	120.90
23	BB	43	C	P-O5'-C5'	-5.12	113.22	120.90
5	CE	122	VAL	N-CA-C	5.12	115.34	108.17
22	DA	273	G	P-O3'-C3'	-5.12	112.52	120.20
22	DA	2777	G	C3'-C2'-C1'	5.12	106.42	101.30
22	DA	1991	U	O4'-C1'-N1	-5.12	100.82	108.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	AA	1323	G	P-O3'-C3'	-5.12	112.52	120.20
22	BA	829	A	P-O5'-C5'	-5.12	113.22	120.90
1	AA	991	U	P-O3'-C3'	5.12	127.87	120.20
22	BA	52	A	P-O5'-C5'	-5.12	113.23	120.90
22	BA	505	A	P-O3'-C3'	-5.11	112.53	120.20
22	BA	512	G	O4'-C1'-N9	5.11	115.87	108.20
22	BA	1287	A	C3'-C2'-C1'	5.11	106.41	101.30
22	DA	947	A	C3'-C2'-C1'	5.11	106.41	101.30
22	BA	982	C	N1-C1'-C2'	5.11	119.67	112.00
22	BA	1287	A	P-O3'-C3'	-5.11	112.53	120.20
22	DA	2881	U	P-O3'-C3'	-5.11	112.53	120.20
22	BA	221	A	P-O3'-C3'	5.11	127.86	120.20
22	BA	2258	C	C4'-C3'-C2'	5.11	107.71	102.60
53	CA	308	C	P-O3'-C3'	-5.11	112.54	120.20
22	DA	1274	A	P-O3'-C3'	-5.10	112.55	120.20
22	DA	1077	A	P-O3'-C3'	-5.10	112.55	120.20
22	DA	1268	A	C3'-C2'-C1'	5.10	106.40	101.30
1	AA	1129	C	N1-C1'-C2'	5.09	121.64	114.00
22	BA	1564	C	N1-C1'-C2'	5.09	119.64	112.00
54	CG	14	ASP	CA-C-N	5.09	124.54	119.24
54	CG	14	ASP	C-N-CA	5.09	124.54	119.24
22	DA	1240	U	N1-C1'-C2'	5.09	119.64	112.00
22	DA	2334	U	N1-C1'-C2'	5.09	121.64	114.00
22	BA	196	A	C4'-C3'-O3'	5.09	117.04	109.40
22	BA	435	C	C3'-C2'-C1'	5.09	106.39	101.30
22	BA	1854	A	O3'-P-O5'	-5.09	96.36	104.00
3	CC	5	HIS	CA-C-N	5.09	124.75	119.56
3	CC	5	HIS	C-N-CA	5.09	124.75	119.56
22	DA	28	A	C3'-C2'-C1'	5.09	106.39	101.30
1	AA	1183	U	N1-C1'-C2'	-5.09	104.37	112.00
22	BA	1920	C	P-O3'-C3'	-5.09	112.57	120.20
53	CA	1161	C	P-O3'-C3'	-5.09	112.57	120.20
20	CT	67	HIS	CB-CA-C	-5.09	109.74	115.79
22	BA	705	A	P-O3'-C3'	-5.08	112.57	120.20
22	BA	1966	A	P-O5'-C5'	-5.08	113.27	120.90
1	AA	529	G	P-O5'-C5'	-5.08	113.28	120.90
2	AB	106	VAL	N-CA-C	-5.08	108.88	113.71
22	BA	2035	G	O3'-P-O5'	-5.08	96.37	104.00
53	CA	174	A	P-O3'-C3'	-5.08	112.58	120.20
22	BA	480	A	C2'-C3'-O3'	-5.08	106.08	113.70
22	BA	2068	U	P-O3'-C3'	-5.08	112.58	120.20
22	BA	1606	C	P-O5'-C5'	-5.08	113.28	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	BA	1901	A	P-O3'-C3'	-5.08	112.58	120.20
22	BA	2251	G	P-O3'-C3'	-5.08	112.58	120.20
22	BA	2833	U	P-O5'-C5'	-5.08	113.28	120.90
22	DA	1803	A	C3'-C2'-C1'	5.08	106.38	101.30
1	AA	110	C	C3'-C2'-C1'	5.08	106.38	101.30
22	BA	459	U	P-O3'-C3'	-5.08	112.58	120.20
22	DA	2036	C	P-O3'-C3'	-5.08	112.58	120.20
22	BA	387	U	P-O5'-C5'	-5.08	113.29	120.90
22	BA	2036	C	C3'-C2'-C1'	5.08	106.38	101.30
23	BB	58	A	P-O3'-C3'	-5.08	112.59	120.20
53	CA	1217	C	P-O3'-C3'	-5.08	112.59	120.20
22	BA	1238	G	N9-C1'-C2'	-5.07	104.39	112.00
22	BA	2450	A	C2'-C3'-O3'	-5.07	106.09	113.70
22	BA	617	G	P-O3'-C3'	-5.07	112.59	120.20
22	BA	1130	U	P-O3'-C3'	5.07	127.81	120.20
24	BC	140	VAL	N-CA-C	5.07	119.89	109.34
24	BC	213	ARG	N-CA-C	-5.07	105.14	113.50
53	CA	1381	U	P-O3'-C3'	-5.07	112.60	120.20
12	CL	89	LEU	CA-C-N	5.07	125.35	119.93
12	CL	89	LEU	C-N-CA	5.07	125.35	119.93
22	DA	2667	C	N1-C1'-C2'	-5.07	104.40	112.00
17	CQ	30	HIS	CA-C-N	5.07	126.17	119.84
17	CQ	30	HIS	C-N-CA	5.07	126.17	119.84
37	DP	49	ILE	N-CA-C	5.07	115.26	108.17
1	AA	485	U	O3'-P-O5'	5.07	111.60	104.00
32	BK	2	ILE	N-CA-C	5.07	116.48	111.67
22	DA	2043	C	O4'-C1'-N1	-5.06	100.90	108.50
22	DA	2391	G	P-O3'-C3'	5.06	127.80	120.20
22	DA	1207	C	P-O3'-C3'	-5.06	112.61	120.20
22	DA	1327	A	C3'-C2'-C1'	5.06	106.36	101.30
1	AA	534	U	P-O3'-C3'	-5.06	112.61	120.20
22	DA	395	U	N1-C1'-C2'	5.06	121.59	114.00
22	BA	2497	A	P-O5'-C5'	5.06	128.49	120.90
22	DA	1314	C	C3'-C2'-C1'	5.06	106.36	101.30
53	CA	347	G	P-O3'-C3'	-5.06	112.62	120.20
22	DA	2517	C	N1-C1'-C2'	5.06	119.58	112.00
1	AA	73	C	N1-C1'-C2'	-5.05	104.42	112.00
22	BA	1943	U	N1-C1'-C2'	5.05	121.58	114.00
1	AA	1066	C	P-O5'-C5'	-5.05	113.32	120.90
1	AA	1381	U	P-O3'-C3'	-5.05	112.62	120.20
22	DA	605	G	C3'-C2'-C1'	5.05	106.35	101.30
53	CA	438	U	C4'-C3'-O3'	-5.05	105.42	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	1900	A	P-O3'-C3'	5.04	127.77	120.20
1	AA	966	G	C3'-C2'-C1'	5.04	106.34	101.30
22	BA	1839	G	N9-C1'-C2'	-5.04	104.43	112.00
37	BP	25	VAL	N-CA-C	5.04	119.83	109.34
22	DA	1965	C	P-O3'-C3'	-5.04	112.63	120.20
3	AC	141	MET	N-CA-C	-5.04	106.98	113.23
22	BA	614	A	C2'-C3'-O3'	5.04	117.06	109.50
38	BQ	103	VAL	CB-CA-C	-5.04	105.44	112.04
22	BA	2631	G	P-O5'-C5'	-5.04	113.34	120.90
30	BI	56	VAL	N-CA-C	5.04	113.85	107.70
1	AA	414	A	C3'-C2'-C1'	5.04	106.34	101.30
53	CA	575	G	P-O3'-C3'	5.04	127.76	120.20
39	DR	49	ILE	N-CA-C	5.04	113.86	106.55
1	AA	198	G	C3'-C2'-C1'	5.04	106.34	101.30
7	AG	14	ASP	CA-C-N	5.04	124.70	119.56
7	AG	14	ASP	C-N-CA	5.04	124.70	119.56
22	BA	1872	A	C3'-C2'-C1'	5.04	106.34	101.30
53	CA	276	G	P-O3'-C3'	-5.04	112.65	120.20
53	CA	559	A	P-O3'-C3'	5.04	127.75	120.20
22	DA	1941	C	N1-C1'-C2'	-5.04	104.45	112.00
22	BA	2868	A	P-O3'-C3'	-5.03	112.65	120.20
22	DA	783	A	P-O3'-C3'	-5.03	112.65	120.20
22	BA	2746	U	P-O3'-C3'	-5.03	112.65	120.20
7	AG	94	ARG	N-CA-C	-5.03	106.31	112.90
22	BA	35	G	C3'-C2'-C1'	5.03	106.33	101.30
57	DB	45	A	P-O3'-C3'	-5.03	112.65	120.20
14	AN	55	SER	CA-C-N	5.03	124.63	119.05
14	AN	55	SER	C-N-CA	5.03	124.63	119.05
22	BA	613	A	O3'-P-O5'	5.03	111.54	104.00
22	BA	1665	A	P-O5'-C5'	-5.03	113.36	120.90
22	DA	861	A	C3'-C2'-C1'	5.03	106.33	101.30
1	AA	935	A	P-O3'-C3'	-5.03	112.66	120.20
22	BA	2490	G	C4'-C3'-C2'	5.03	107.63	102.60
22	BA	1693	U	N1-C1'-C2'	5.02	121.53	114.00
22	DA	1722	A	P-O3'-C3'	-5.02	112.67	120.20
57	DB	88	C	N1-C1'-C2'	5.02	119.53	112.00
53	CA	72	A	P-O3'-C3'	-5.02	112.67	120.20
22	BA	919	U	O4'-C1'-N1	-5.02	100.97	108.50
41	BT	72	GLN	N-CA-C	-5.02	106.33	112.90
22	DA	1717	A	C3'-C2'-C1'	5.02	106.32	101.30
22	DA	2440	C	P-O3'-C3'	-5.02	112.67	120.20
22	BA	787	C	P-O5'-C5'	-5.02	113.38	120.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
22	DA	2490	G	P-O3'-C3'	5.02	127.72	120.20
53	CA	132	C	O4'-C1'-N1	5.01	116.02	108.50
1	AA	1224	U	O4'-C1'-N1	5.01	115.72	108.20
22	BA	739	A	C4'-C3'-C2'	5.01	107.61	102.60
22	DA	407	G	C2'-C3'-O3'	-5.01	106.18	113.70
1	AA	914	A	C3'-C2'-C1'	5.01	106.31	101.30
22	BA	705	A	P-O5'-C5'	-5.01	113.38	120.90
22	BA	913	U	C4'-C3'-C2'	5.01	107.61	102.60
22	BA	1493	C	O3'-P-O5'	-5.01	96.48	104.00
22	BA	2820	A	P-O3'-C3'	5.01	127.72	120.20
53	CA	974	A	P-O3'-C3'	5.01	127.71	120.20
22	BA	1321	A	C2'-C3'-O3'	-5.01	106.19	113.70
22	DA	374	A	C3'-C2'-C1'	5.01	106.31	101.30
22	DA	606	U	P-O3'-C3'	-5.01	112.69	120.20
24	BC	44	ASN	N-CA-C	-5.00	107.00	113.01
22	BA	1330	C	C3'-C2'-C1'	5.00	106.30	101.30
22	BA	2759	G	P-O5'-C5'	-5.00	113.40	120.90
22	BA	2768	U	P-O3'-C3'	-5.00	112.69	120.20
47	BZ	56	VAL	N-CA-C	5.00	115.05	107.75
53	CA	253	A	C3'-C2'-C1'	5.00	106.30	101.30
22	DA	976	G	C3'-C2'-C1'	5.00	106.30	101.30
1	AA	813	U	N1-C1'-C2'	-5.00	104.50	112.00
22	BA	585	G	P-O3'-C3'	5.00	127.70	120.20

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
25	BD	9	VAL	Peptide
31	BJ	43	GLU	Peptide
35	BN	101	GLY	Peptide
58	DF	177	ARG	Mainchain

5.2 Too-close contacts

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogen atoms added and optimized by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, whereas Symm-Clashes lists symmetry-related clashes.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32895	0	16553	1984	0
2	AB	1705	0	1731	291	0
2	CB	1705	0	1732	245	0
3	AC	1625	0	1699	184	0
3	CC	1625	0	1699	197	0
4	AD	1643	0	1710	258	0
4	CD	1643	0	1710	236	0
5	AE	1106	0	1148	213	0
5	CE	1106	0	1148	154	0
6	AF	818	0	808	122	0
6	CF	818	0	808	126	0
7	AG	1182	0	1240	130	0
8	AH	979	0	1034	150	0
8	CH	979	0	1034	133	0
9	AI	1022	0	1070	135	0
9	CI	1022	0	1070	167	0
10	AJ	787	0	828	142	0
10	CJ	787	0	828	151	0
11	AK	877	0	887	145	0
11	CK	877	0	887	133	0
12	AL	955	0	1019	131	0
12	CL	955	0	1019	160	0
13	AM	884	0	944	98	0
14	AN	774	0	827	148	0
14	CN	769	0	822	134	0
15	AO	714	0	737	92	0
15	CO	714	0	737	62	0
16	AP	649	0	666	83	0
17	AQ	649	0	691	102	0
17	CQ	649	0	691	113	0
18	AR	456	0	478	59	0
18	CR	456	0	478	60	0
19	AS	638	0	665	75	0
19	CS	638	0	665	109	0
20	AT	665	0	714	99	0
20	CT	665	0	714	92	0
21	AU	426	0	449	119	0
21	CU	426	0	449	97	0
22	BA	61274	0	30819	3243	0
22	DA	60995	0	30679	5238	0
23	BB	2529	0	1281	118	0
24	BC	2083	0	2157	300	0
24	DC	2083	0	2157	357	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
25	BD	1565	0	1616	274	0
25	DD	1565	0	1616	298	0
26	BE	1552	0	1619	212	0
26	DE	1552	0	1619	281	0
27	BF	1411	0	1447	213	0
28	BG	1323	0	1374	221	0
28	DG	1323	0	1374	206	0
29	BH	1111	0	1148	175	0
29	DH	1111	0	1148	181	0
30	BI	1032	0	1088	121	0
30	DI	1032	0	1088	125	0
31	BJ	1129	0	1162	229	0
31	DJ	1129	0	1162	209	0
32	BK	939	0	1012	167	0
32	DK	939	0	1012	190	0
33	BL	1045	0	1117	177	0
33	DL	1045	0	1117	197	0
34	BM	1074	0	1157	153	0
34	DM	1074	0	1157	158	0
35	BN	961	0	1000	132	0
35	DN	961	0	1000	213	0
36	BO	892	0	923	95	0
36	DO	892	0	923	113	0
37	BP	917	0	965	205	0
37	DP	917	0	965	179	0
38	BQ	947	0	1022	196	0
38	DQ	947	0	1022	184	0
39	BR	816	0	839	144	0
39	DR	816	0	839	142	0
40	BS	857	0	922	118	0
40	DS	857	0	922	140	0
41	BT	739	0	807	163	0
41	DT	739	0	807	164	0
42	BU	780	0	834	87	0
42	DU	780	0	834	134	0
43	BV	753	0	780	83	0
43	DV	753	0	780	110	0
44	BW	596	0	610	234	0
44	DW	596	0	610	180	0
45	BX	625	0	655	109	0
45	DX	625	0	655	116	0
46	BY	509	0	543	71	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
46	DY	509	0	543	108	0
47	BZ	449	0	491	60	0
47	DZ	449	0	491	60	0
48	B0	444	0	461	33	0
48	D0	444	0	461	76	0
49	B1	410	0	440	61	0
49	D1	410	0	440	54	0
50	B2	377	0	418	42	0
50	D2	377	0	418	68	0
51	B3	504	0	574	54	0
51	D3	504	0	574	68	0
52	B4	302	0	340	48	0
52	D4	302	0	342	42	0
53	CA	32831	0	16521	2402	0
54	CG	1175	0	1230	199	0
55	CM	877	0	937	171	0
56	CP	639	0	656	109	0
57	DB	2507	0	1270	232	0
58	DF	1420	0	1460	295	0
59	AA	42	0	0	0	0
59	AN	1	0	0	0	0
59	BA	134	0	0	0	0
59	BB	4	0	0	0	0
59	BL	1	0	0	0	0
59	CA	42	0	0	0	0
59	DA	132	0	0	0	0
59	DB	1	0	0	0	0
59	DC	2	0	0	0	0
59	DE	1	0	0	0	0
59	DJ	1	0	0	0	0
60	BA	27	0	32	2	0
61	B4	1	0	0	0	0
61	D4	1	0	0	0	0
62	AA	197	0	0	5	0
62	AE	1	0	0	0	0
62	AL	1	0	0	0	0
62	AN	6	0	0	2	0
62	AT	2	0	0	0	0
62	AU	1	0	0	0	0
62	B2	2	0	0	0	0
62	B3	2	0	0	1	0
62	B4	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
62	BA	601	0	0	48	0
62	BB	20	0	0	1	0
62	BC	8	0	0	0	0
62	BD	4	0	0	1	0
62	BE	1	0	0	1	0
62	BL	3	0	0	1	0
62	BN	3	0	0	1	0
62	BQ	1	0	0	0	0
62	BR	1	0	0	1	0
62	BT	3	0	0	0	0
62	CA	193	0	0	7	0
62	CE	4	0	0	0	0
62	CI	1	0	0	0	0
62	CL	1	0	0	0	0
62	CN	3	0	0	0	0
62	CT	3	0	0	0	0
62	CU	2	0	0	0	0
62	D2	2	0	0	0	0
62	D3	1	0	0	0	0
62	D4	4	0	0	0	0
62	DA	599	0	0	28	0
62	DB	4	0	0	0	0
62	DC	9	0	0	2	0
62	DD	2	0	0	0	0
62	DE	3	0	0	0	0
62	DJ	5	0	0	0	0
62	DL	5	0	0	1	0
62	DN	3	0	0	0	0
62	DT	3	0	0	1	0
62	DU	2	0	0	0	0
62	DV	1	0	0	0	0
All	All	284501	0	190871	25584	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 54.

All (25584) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:900:A:C2'	22:BA:901:C:H5'	1.40	1.46
2:AB:108:GLN:O	2:AB:110:ILE:N	1.58	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1073:A:C2'	22:BA:1074:G:H5''	1.54	1.35
2:CB:93:HIS:CG	2:CB:145:ASN:O	1.88	1.27
28:BG:84:LYS:HG3	28:BG:132:LEU:N	1.49	1.26
22:DA:1915:U:H2'	22:DA:1916:A:C8	1.71	1.26
53:CA:989:U:C2'	53:CA:990:C:H5'	1.67	1.25
31:BJ:111:LYS:HD3	31:BJ:112:GLY:N	1.50	1.25
22:BA:2197:U:O2'	22:BA:2198:A:H2'	1.30	1.24
22:DA:2800:A:O2'	22:DA:2801:G:H4'	1.25	1.24
22:DA:1401:G:H2'	22:DA:1402:U:C6	1.74	1.23
24:BC:246:PRO:HG2	24:BC:247:TRP:CZ3	1.75	1.22
53:CA:82:G:O2'	53:CA:83:C:H4'	1.38	1.22
1:AA:174:A:O2'	1:AA:175:C:H5'	1.41	1.21
38:BQ:63:ARG:NH1	38:BQ:96:ASP:HA	1.56	1.20
53:CA:987:G:H2'	53:CA:988:G:C8	1.77	1.19
44:DW:27:GLY:CA	44:DW:31:LEU:HD11	1.71	1.19
22:BA:900:A:H2'	22:BA:901:C:C5'	1.71	1.19
2:AB:110:ILE:CD1	2:AB:147:LEU:HD13	1.73	1.19
22:DA:1492:G:H3'	22:DA:1493:C:H5'	1.21	1.19
22:BA:751:A:H5''	22:BA:752:A:OP1	1.41	1.18
37:BP:50:ARG:HG2	37:BP:57:ALA:N	1.54	1.18
22:DA:1537:G:C2'	22:DA:1538:G:H4'	1.74	1.18
53:CA:1014:A:H4'	19:CS:13:HIS:CD2	1.78	1.17
1:AA:94:G:H4'	1:AA:95:C:C5'	1.73	1.17
5:AE:80:LEU:HD23	5:AE:122:VAL:HG11	1.22	1.17
1:AA:874:G:O2'	1:AA:875:U:H5'	1.42	1.17
22:BA:1071:G:H1'	22:BA:1089:A:N7	1.59	1.17
39:BR:42:ALA:HA	39:BR:46:GLU:HB2	1.26	1.17
28:BG:8:VAL:HG11	28:BG:49:LEU:HB2	1.23	1.16
31:BJ:44:TYR:HB2	38:BQ:63:ARG:HB3	1.23	1.16
12:CL:43:LYS:HB3	12:CL:44:PRO:CD	1.75	1.16
23:BB:30:C:H2'	23:BB:31:C:H5'	1.27	1.16
9:CI:51:LEU:HG	9:CI:86:LEU:HD22	1.19	1.16
11:AK:126:ARG:HB2	21:AU:33:ARG:NH1	1.57	1.16
28:BG:83:THR:HA	28:BG:84:LYS:NZ	1.59	1.16
22:DA:1024:G:H3'	22:DA:1025:G:C5'	1.74	1.16
22:DA:1024:G:C3'	22:DA:1025:G:H5''	1.75	1.16
17:AQ:18:LYS:HA	17:AQ:47:ASP:HB2	1.22	1.16
44:BW:18:LYS:HA	44:BW:36:ILE:HG13	1.27	1.16
41:DT:39:THR:HG21	41:DT:42:GLU:HB2	1.28	1.15
32:BK:18:ARG:HH11	32:BK:18:ARG:HG3	1.03	1.15
38:BQ:91:ARG:HD3	39:BR:11:GLN:HG3	1.19	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:13:LYS:HE2	5:CE:13:LYS:HA	1.28	1.15
38:DQ:27:ARG:HA	38:DQ:33:VAL:CG1	1.75	1.15
33:BL:27:LEU:H	33:BL:27:LEU:HD12	1.09	1.15
22:BA:1179:G:C5	22:BA:1180:U:H1'	1.82	1.15
53:CA:519:C:H2'	53:CA:520:A:C8	1.81	1.15
22:DA:1021:A:O2'	22:DA:1022:G:H4'	1.46	1.15
53:CA:72:A:O2'	53:CA:73:C:H5'	1.46	1.14
22:DA:1537:G:H2'	22:DA:1538:G:H4'	1.28	1.14
1:AA:842:U:H3'	1:AA:843:U:H5''	1.18	1.14
53:CA:1378:C:H3'	53:CA:1379:G:H5''	1.30	1.14
32:BK:10:VAL:HG21	32:BK:16:ALA:HB1	1.25	1.14
53:CA:1226:C:H41	55:CM:102:LYS:HA	1.11	1.14
22:DA:996:A:H4'	38:DQ:91:ARG:HD2	1.25	1.14
22:BA:2352:A:C2	44:BW:30:VAL:HG11	1.81	1.14
22:DA:1784:A:H4'	22:DA:1785:A:O5'	1.41	1.14
53:CA:988:G:O2'	53:CA:989:U:H5'	1.48	1.14
44:DW:37:VAL:HG12	44:DW:55:ASP:HB2	1.19	1.14
24:BC:16:VAL:H	24:BC:203:VAL:HG12	1.04	1.13
38:BQ:69:ARG:HH21	38:BQ:69:ARG:HB2	1.02	1.13
32:DK:71:ARG:HB3	32:DK:72:PRO:CD	1.78	1.13
6:CF:18:VAL:HG21	6:CF:58:HIS:CD2	1.83	1.13
22:DA:1492:G:H3'	22:DA:1493:C:C5'	1.77	1.13
4:AD:47:LEU:HD21	4:AD:52:VAL:HG12	1.29	1.13
22:BA:1073:A:C3'	22:BA:1074:G:H5''	1.78	1.13
53:CA:1422:G:H5''	32:DK:48:PRO:HB3	1.24	1.13
3:AC:76:ILE:HD11	3:AC:102:ILE:HG12	1.31	1.12
22:DA:604:G:O2'	22:DA:605:G:H5'	1.45	1.12
2:AB:40:ILE:HD13	2:AB:201:GLY:HA2	1.27	1.12
22:BA:2510:C:H5'	22:BA:2510:C:C6	1.83	1.12
39:BR:49:ILE:HD12	39:BR:52:PRO:CA	1.77	1.12
57:DB:110:C:O2'	57:DB:111:U:H5'	1.48	1.12
1:AA:1395:C:H5'	1:AA:1395:C:H6	1.13	1.12
2:AB:89:PHE:HB3	2:AB:149:GLY:HA2	1.14	1.12
21:AU:9:GLU:CG	21:AU:10:PRO:HD3	1.80	1.12
27:BF:129:MET:HE2	27:BF:153:ILE:HD11	1.22	1.12
11:CK:70:ALA:HA	11:CK:73:VAL:HG22	1.26	1.12
26:DE:47:LYS:HB3	26:DE:51:GLU:HB2	1.28	1.12
12:CL:43:LYS:CB	12:CL:44:PRO:HD2	1.80	1.11
22:DA:2631:G:H2'	22:DA:2632:A:H5''	1.19	1.11
34:DM:27:SER:H	34:DM:66:ARG:NH2	1.48	1.11
6:AF:6:ILE:HG12	6:AF:89:VAL:HG23	1.13	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:43:LYS:HB3	20:AT:86:ALA:HB1	1.20	1.11
2:CB:46:VAL:HG13	2:CB:47:PRO:HD3	1.22	1.11
1:AA:566:G:H4'	1:AA:567:G:OP1	1.45	1.11
39:BR:49:ILE:CD1	39:BR:52:PRO:HA	1.79	1.11
53:CA:1182:G:C4'	53:CA:1183:U:H5'	1.81	1.11
22:DA:2060:A:H2'	26:DE:63:LYS:HZ2	1.06	1.11
1:AA:243:A:H4'	1:AA:244:U:C5'	1.81	1.11
22:BA:1045:C:H5''	22:BA:1046:A:H5'	1.33	1.11
27:BF:35:LEU:HB3	27:BF:153:ILE:CG2	1.79	1.11
38:BQ:27:ARG:HG3	38:BQ:27:ARG:HH11	1.09	1.11
49:B1:33:LEU:H	49:B1:51:ALA:HB3	1.00	1.11
22:DA:2296:U:H4'	22:DA:2297:A:OP1	1.39	1.11
29:BH:31:VAL:HB	29:BH:32:PRO:CD	1.80	1.11
21:CU:24:LYS:HG3	21:CU:25:ALA:H	1.03	1.11
6:AF:16:GLU:CG	4:CD:191:SER:HB2	1.81	1.10
22:BA:646:U:H3'	22:BA:647:G:H5''	1.25	1.10
22:BA:1073:A:H2'	22:BA:1074:G:H5''	1.13	1.10
25:BD:99:GLU:HG3	25:BD:100:LEU:H	0.94	1.10
28:BG:83:THR:HA	28:BG:84:LYS:HZ3	0.94	1.10
53:CA:1183:U:H3'	53:CA:1184:G:H5''	1.30	1.10
22:DA:2135:A:C3'	22:DA:2136:G:H5''	1.81	1.10
22:BA:1458:U:H4'	22:BA:1459:G:O5'	1.51	1.10
32:BK:10:VAL:CG2	32:BK:16:ALA:HB1	1.81	1.10
36:BO:59:ALA:HA	36:BO:62:LEU:HD12	1.24	1.10
44:BW:24:ARG:HD2	44:BW:25:PHE:N	1.65	1.10
44:BW:37:VAL:HG12	44:BW:38:ARG:H	1.06	1.10
53:CA:238:A:H2'	53:CA:239:U:H5''	1.23	1.10
1:AA:975:A:H4'	1:AA:976:G:H5'	1.20	1.10
5:AE:153:ALA:HA	5:AE:156:ARG:HB2	1.32	1.10
7:AG:12:LEU:H	7:AG:12:LEU:HD22	1.13	1.10
22:BA:2431:U:H6	22:BA:2431:U:H5'	1.10	1.10
35:DN:28:LEU:HD21	35:DN:115:LEU:HD21	1.16	1.10
39:DR:39:LEU:HA	39:DR:49:ILE:HG21	1.31	1.10
1:AA:158:G:C2'	1:AA:159:G:H5''	1.80	1.10
20:CT:23:ARG:HB3	20:CT:60:GLN:HE22	1.16	1.10
22:DA:217:A:H2'	22:DA:218:A:C8	1.86	1.10
24:DC:144:GLU:HA	24:DC:151:GLY:HA2	1.28	1.10
37:DP:86:LYS:HA	37:DP:86:LYS:HZ2	1.14	1.10
1:AA:1007:U:H2'	1:AA:1008:U:H5''	1.33	1.10
36:BO:40:ILE:HG12	36:BO:47:VAL:HG12	1.32	1.10
43:BV:10:LYS:HD3	43:BV:10:LYS:H	1.02	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:33:C:O2'	22:DA:34:U:H5'	1.50	1.10
33:DL:79:LEU:HA	33:DL:82:LEU:HD11	1.33	1.10
40:BS:88:ARG:HG2	40:BS:88:ARG:HH21	0.98	1.09
4:CD:2:ARG:NH2	4:CD:114:ARG:HD3	1.67	1.09
6:CF:11:HIS:CD2	6:CF:54:LEU:HD21	1.85	1.09
22:DA:2060:A:H2'	26:DE:63:LYS:NZ	1.64	1.09
22:DA:2214:C:O2'	22:DA:2215:C:H5'	1.52	1.09
22:DA:2689:U:H4'	22:DA:2690:U:OP2	1.51	1.09
37:DP:9:GLN:HB3	37:DP:12:MET:HE2	1.18	1.09
15:AO:63:ARG:HD3	15:AO:87:ARG:HH22	1.04	1.09
22:BA:636:G:C5	33:BL:111:ILE:HD11	1.87	1.09
27:BF:40:GLY:CA	27:BF:84:ILE:HD11	1.82	1.09
53:CA:373:A:O2'	53:CA:374:A:H5'	1.52	1.09
22:DA:1565:C:O2'	22:DA:1566:A:H2'	1.52	1.09
22:DA:1639:C:C2'	22:DA:1640:A:H5''	1.82	1.09
57:DB:58:A:H2'	57:DB:59:A:C8	1.88	1.09
38:DQ:61:ILE:HD11	38:DQ:92:LYS:HD3	1.29	1.09
27:BF:35:LEU:HB3	27:BF:153:ILE:HG22	1.26	1.09
38:BQ:4:LYS:HG3	38:BQ:5:ARG:H	1.11	1.09
4:CD:25:ARG:NH1	4:CD:30:LYS:HG2	1.68	1.09
1:AA:204:G:H3'	1:AA:205:A:H5''	1.19	1.09
22:BA:2510:C:H5'	22:BA:2510:C:H6	1.02	1.09
53:CA:989:U:H2'	53:CA:990:C:H5'	1.14	1.09
11:AK:87:GLY:N	11:AK:113:THR:HG22	1.67	1.09
29:BH:89:LYS:HG2	29:BH:90:LEU:H	1.16	1.09
53:CA:987:G:H2'	53:CA:988:G:H8	0.92	1.09
38:DQ:87:VAL:HG21	39:DR:52:PRO:HD3	1.09	1.09
1:AA:721:G:H4'	1:AA:722:G:O5'	1.42	1.08
22:BA:2352:A:N1	44:BW:30:VAL:HG11	1.66	1.08
10:CJ:64:GLN:HB2	14:CN:98:ALA:HB3	1.26	1.08
11:CK:44:ALA:HB3	11:CK:69:CYS:HB2	1.34	1.08
22:DA:1639:C:H2'	22:DA:1640:A:H5''	1.27	1.08
22:DA:1817:G:O2'	22:DA:1818:U:H5'	1.54	1.08
44:DW:40:ARG:HH11	44:DW:40:ARG:HG2	0.94	1.08
9:AI:40:ARG:HA	9:AI:44:ARG:HB3	1.33	1.08
5:CE:29:ILE:HG23	5:CE:30:PHE:H	1.13	1.08
21:CU:16:ARG:HG3	21:CU:19:LYS:HG2	1.15	1.08
35:DN:37:THR:CG2	35:DN:39:PRO:HD2	1.83	1.08
26:BE:119:ILE:CD1	26:BE:187:VAL:HA	1.84	1.08
44:BW:9:THR:HG23	44:BW:10:ARG:HD3	1.30	1.08
39:DR:27:ILE:HG22	39:DR:28:ALA:H	1.09	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:900:A:C2'	22:BA:901:C:C5'	2.30	1.08
22:BA:1238:G:O2'	22:BA:1239:G:H5'	1.52	1.08
34:BM:35:ALA:O	34:BM:36:VAL:HB	1.54	1.08
53:CA:1152:A:H2'	53:CA:1153:G:C8	1.89	1.08
22:DA:2199:A:H2'	22:DA:2200:C:C6	1.89	1.08
51:D3:35:LYS:HB2	51:D3:40:LYS:HD3	1.25	1.08
12:AL:49:ARG:HH11	12:AL:49:ARG:HG2	0.95	1.08
29:BH:31:VAL:HB	29:BH:32:PRO:HD2	1.32	1.08
22:DA:2051:A:H4'	22:DA:2052:A:OP1	1.37	1.08
22:DA:2136:G:H2'	22:DA:2137:U:C5	1.88	1.08
20:AT:27:MET:HE1	20:AT:57:VAL:HG22	1.34	1.07
53:CA:1168:U:H2'	53:CA:1168:U:O2	1.52	1.07
54:CG:74:VAL:HG13	54:CG:140:VAL:HG13	1.31	1.07
22:DA:1313:U:H2'	22:DA:1313:U:O2	1.47	1.07
26:DE:148:ILE:HD13	26:DE:187:VAL:HG21	1.12	1.07
1:AA:1021:A:H2'	1:AA:1022:A:H5''	1.28	1.07
4:AD:109:THR:HG23	4:AD:112:GLU:H	1.13	1.07
5:AE:80:LEU:HD12	5:AE:146:MET:HE1	1.30	1.07
25:BD:97:SER:O	25:BD:99:GLU:HG2	1.53	1.07
44:BW:28:GLU:HB3	44:BW:31:LEU:HD21	1.08	1.07
46:BY:32:ALA:HB2	46:BY:37:LEU:HD12	1.32	1.07
53:CA:120:A:C2'	53:CA:121:U:H5''	1.84	1.07
4:CD:2:ARG:HH21	4:CD:114:ARG:HD3	0.91	1.07
19:CS:40:PHE:HB3	19:CS:41:PRO:HD2	1.27	1.07
20:AT:26:MET:HE1	20:AT:56:ILE:HD11	1.35	1.07
22:BA:1179:G:H3'	22:BA:1180:U:H4'	1.33	1.07
25:BD:106:LYS:HB3	25:BD:206:ALA:HB3	1.27	1.07
31:BJ:37:ARG:HA	31:BJ:118:MET:CE	1.84	1.07
35:BN:103:ARG:HD3	35:BN:110:MET:HE3	1.35	1.07
54:CG:22:LEU:HA	54:CG:25:PHE:HB3	1.23	1.07
8:CH:103:VAL:HG12	8:CH:124:ILE:HA	1.30	1.07
10:CJ:84:VAL:HG23	10:CJ:85:ASP:H	1.08	1.07
22:DA:1060:U:H4'	22:DA:1061:U:O5'	1.54	1.07
2:AB:9:LEU:HD12	2:AB:42:LEU:HD13	1.27	1.07
2:AB:110:ILE:HD11	2:AB:147:LEU:HD13	1.30	1.07
25:BD:16:THR:HG23	25:BD:18:ASP:OD1	1.53	1.07
25:BD:169:ARG:O	25:BD:170:VAL:HG13	1.55	1.07
2:CB:206:ILE:HA	2:CB:209:VAL:HG22	1.33	1.07
6:CF:92:THR:HG22	6:CF:94:HIS:H	1.20	1.07
22:DA:449:A:O2'	22:DA:450:G:H5'	1.52	1.07
22:DA:589:U:O2'	22:DA:590:A:H5'	1.55	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1079:C:H41	22:DA:1088:A:H5''	1.09	1.07
1:AA:1129:C:H5''	9:AI:17:ARG:NH2	1.68	1.07
37:BP:50:ARG:HD3	37:BP:56:SER:HB3	1.09	1.07
53:CA:1046:A:O2'	53:CA:1047:G:H5'	1.55	1.07
22:DA:1474:U:H2'	22:DA:1475:G:H5'	1.37	1.07
22:DA:1935:G:H1'	22:DA:1964:G:N2	1.68	1.07
22:DA:2093:G:O6	22:DA:2225:A:C8	2.08	1.07
32:DK:38:ILE:HG12	32:DK:61:VAL:HG12	1.34	1.07
52:D4:16:ILE:HG12	52:D4:25:VAL:HG22	1.15	1.07
1:AA:158:G:H2'	1:AA:159:G:H5''	1.11	1.06
9:AI:98:ARG:CG	9:AI:103:VAL:HG21	1.85	1.06
53:CA:597:G:H2'	53:CA:598:U:H5'	1.32	1.06
22:DA:959:A:H2'	22:DA:960:A:C8	1.89	1.06
1:AA:374:A:H5''	1:AA:452:A:C2	1.90	1.06
1:AA:1065:U:H5''	1:AA:1190:G:N2	1.70	1.06
22:BA:1060:U:C4'	22:BA:1061:U:H5'	1.85	1.06
32:BK:21:CYS:HB2	32:BK:39:ILE:HD11	1.25	1.06
53:CA:575:G:H4'	53:CA:576:C:O5'	1.55	1.06
52:D4:7:VAL:HG13	52:D4:8:LYS:H	1.15	1.06
22:BA:762:U:H4'	22:BA:763:G:O5'	1.49	1.06
53:CA:987:G:C2'	53:CA:988:G:H8	1.68	1.06
25:DD:8:LYS:HB2	25:DD:201:LEU:HD11	1.38	1.06
1:AA:1238:A:H5'	1:AA:1336:C:H41	1.14	1.06
22:BA:946:C:O2'	22:BA:947:A:H5'	1.54	1.06
24:BC:131:MET:HA	24:BC:134:ILE:HD12	1.27	1.06
22:BA:1060:U:H4'	22:BA:1061:U:C5'	1.86	1.06
38:BQ:49:ARG:HH11	38:BQ:49:ARG:HG3	1.20	1.06
53:CA:1148:U:O2'	53:CA:1149:C:H5'	1.56	1.06
32:DK:7:MET:HA	32:DK:7:MET:HE3	1.12	1.06
2:AB:66:ILE:HB	2:AB:88:GLN:HB3	1.37	1.05
42:BU:73:ASN:ND2	42:BU:76:THR:HG23	1.71	1.05
4:CD:25:ARG:NH1	4:CD:25:ARG:HG2	1.53	1.05
5:CE:29:ILE:HG23	5:CE:30:PHE:N	1.64	1.05
22:DA:873:C:H4'	34:DM:64:TRP:NE1	1.70	1.05
9:AI:32:ARG:HG2	9:AI:36:GLN:HB3	1.34	1.05
53:CA:6:G:H2'	53:CA:6:G:N3	1.66	1.05
54:CG:91:ARG:HG2	54:CG:92:PRO:HD2	1.34	1.05
55:CM:95:PRO:HD3	55:CM:108:ARG:HG2	1.38	1.05
22:DA:197:A:H62	22:DA:2430:A:H2'	0.88	1.05
22:DA:1127:A:O2'	22:DA:1128:G:H5'	1.55	1.05
32:DK:70:ARG:HB3	32:DK:76:VAL:HG22	1.31	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B1:16:THR:HB	49:B1:41:VAL:HG21	1.31	1.05
22:DA:84:A:H4'	22:DA:85:G:O5'	1.56	1.05
22:DA:491:G:H2'	22:DA:492:A:C8	1.90	1.05
22:DA:2092:U:H4'	22:DA:2093:G:OP1	1.57	1.05
26:DE:130:LYS:HB3	26:DE:133:LEU:HB3	1.37	1.05
33:DL:17:LYS:NZ	33:DL:19:LEU:HD22	1.68	1.05
11:AK:108:ASN:HB3	21:AU:6:ARG:HG2	1.36	1.05
22:BA:2585:U:O2'	22:BA:2586:U:H5'	1.57	1.05
25:BD:172:VAL:O	25:BD:173:GLN:HB2	1.56	1.05
32:DK:111:LYS:H	32:DK:111:LYS:HE3	1.17	1.05
40:DS:86:MET:HE2	40:DS:87:PRO:HD2	1.38	1.05
4:CD:25:ARG:HH11	4:CD:25:ARG:CG	1.70	1.05
26:DE:170:ARG:HH22	26:DE:176:ASP:HB2	1.20	1.05
29:DH:115:VAL:HG12	29:DH:132:PHE:HB2	1.35	1.05
35:DN:37:THR:HG22	35:DN:39:PRO:HD2	1.05	1.05
30:BI:79:LEU:HA	30:BI:83:ALA:HB3	1.34	1.04
37:BP:50:ARG:CB	37:BP:57:ALA:H	1.70	1.04
2:CB:114:LYS:HE3	2:CB:151:LYS:HB2	1.34	1.04
24:DC:122:ALA:HB3	24:DC:127:ASN:ND2	1.71	1.04
1:AA:243:A:H4'	1:AA:244:U:H5''	1.39	1.04
2:AB:163:ILE:HG23	2:AB:164:ASP:H	1.16	1.04
5:AE:81:GLN:HG2	5:AE:149:PRO:HG3	1.39	1.04
22:BA:2269:G:H4'	44:BW:18:LYS:HE2	1.36	1.04
53:CA:33:A:H2'	53:CA:34:C:H6	1.19	1.04
17:CQ:30:HIS:HE1	17:CQ:32:ILE:HG13	1.17	1.04
25:DD:36:GLN:HG3	25:DD:38:LYS:HZ1	1.21	1.04
10:AJ:29:ALA:HB1	10:AJ:36:VAL:HG21	1.39	1.04
22:BA:1287:A:H5'	35:BN:103:ARG:HD2	1.38	1.04
41:BT:39:THR:HB	41:BT:42:GLU:HB2	1.33	1.04
22:DA:1662:U:H2'	22:DA:1663:G:H5''	1.39	1.04
6:AF:16:GLU:HG2	4:CD:191:SER:CB	1.87	1.04
17:AQ:16:MET:HB2	17:AQ:19:SER:HB3	1.34	1.04
29:BH:96:THR:O	29:BH:97:ARG:HG3	1.56	1.04
2:CB:79:VAL:HA	2:CB:213:LEU:HD21	1.38	1.04
2:CB:114:LYS:HA	2:CB:117:GLU:HG2	1.35	1.04
3:CC:190:THR:HG22	3:CC:191:THR:H	1.20	1.04
22:DA:382:A:H2'	22:DA:383:C:H5''	1.39	1.04
1:AA:1129:C:H5''	9:AI:17:ARG:HH22	0.87	1.04
22:BA:923:G:H21	44:BW:23:LYS:HZ3	1.05	1.04
53:CA:982:U:H4'	53:CA:983:A:O5'	1.57	1.04
25:DD:34:VAL:HG12	25:DD:48:ILE:HD11	1.32	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1239:A:H62	1:AA:1299:A:N6	1.54	1.03
53:CA:987:G:O2'	53:CA:988:G:H5'	1.58	1.03
20:CT:73:ARG:HH11	20:CT:73:ARG:CG	1.71	1.03
22:DA:297:G:H5''	42:DU:84:PHE:HB2	1.38	1.03
40:BS:73:LYS:HE3	40:BS:74:ILE:H	1.22	1.03
22:DA:491:G:H2'	22:DA:492:A:H8	1.17	1.03
25:DD:124:ARG:HD3	25:DD:125:TRP:CD1	1.92	1.03
1:AA:415:A:H2'	1:AA:416:G:C8	1.94	1.03
5:AE:153:ALA:HA	5:AE:156:ARG:CB	1.89	1.03
27:BF:43:ILE:HG22	27:BF:82:TYR:CE1	1.92	1.03
53:CA:764:C:H2'	53:CA:765:G:H5'	1.36	1.03
24:DC:122:ALA:HB3	24:DC:127:ASN:HD22	1.24	1.03
11:AK:87:GLY:H	11:AK:113:THR:HG22	0.90	1.03
21:AU:52:VAL:HG13	21:AU:53:LYS:H	1.21	1.03
32:BK:71:ARG:CB	32:BK:72:PRO:HD3	1.86	1.03
44:BW:39:GLN:HG2	44:BW:41:GLY:H	1.19	1.03
22:DA:668:A:H2'	22:DA:670:A:H62	1.18	1.03
22:DA:1032:A:H1'	52:D4:23:ILE:HD13	1.41	1.03
22:DA:1645:G:OP1	22:DA:1646:C:H5'	1.57	1.03
25:DD:114:LYS:HD2	25:DD:116:LYS:NZ	1.72	1.03
28:BG:104:LEU:HB2	28:BG:112:VAL:CG2	1.88	1.03
8:CH:76:ARG:HD3	8:CH:77:VAL:N	1.71	1.03
22:DA:234:U:O2'	22:DA:235:U:H5'	1.58	1.03
22:BA:1179:G:C6	22:BA:1180:U:H1'	1.94	1.02
53:CA:335:C:H2'	53:CA:336:A:C8	1.94	1.02
5:CE:103:GLY:O	5:CE:104:ILE:HG22	1.58	1.02
11:CK:126:ARG:HB2	21:CU:33:ARG:HD2	1.36	1.02
22:DA:2135:A:H3'	22:DA:2136:G:H5''	1.05	1.02
58:DF:137:PHE:HB2	58:DF:138:PRO:HD2	1.37	1.02
1:AA:545:C:H5'	4:AD:68:GLU:HG3	1.39	1.02
1:AA:1361:G:H2'	1:AA:1362:A:H5'	1.41	1.02
2:AB:108:GLN:O	2:AB:111:LYS:N	1.91	1.02
17:AQ:45:VAL:HG21	17:AQ:60:ILE:HD13	1.34	1.02
22:BA:2503:A:H4'	22:BA:2504:U:OP1	1.56	1.02
38:BQ:69:ARG:HH21	38:BQ:69:ARG:CB	1.72	1.02
10:CJ:15:HIS:HA	10:CJ:18:ILE:HG22	1.40	1.02
22:DA:2646:C:H5'	22:DA:2646:C:H6	1.20	1.02
57:DB:24:G:H1'	57:DB:27:C:N4	1.74	1.02
2:AB:46:VAL:HB	2:AB:47:PRO:HD3	1.42	1.02
22:BA:1141:U:H4'	22:BA:1142:A:O5'	1.60	1.02
53:CA:254:G:H21	17:CQ:17:GLU:HG3	1.25	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:335:C:H2'	53:CA:336:A:H8	1.24	1.02
21:CU:35:GLU:HG3	21:CU:36:PHE:H	1.23	1.02
38:DQ:27:ARG:HA	38:DQ:33:VAL:HG11	1.36	1.02
44:DW:18:LYS:HD3	44:DW:19:ARG:N	1.74	1.02
1:AA:1138:G:N3	1:AA:1138:G:H2'	1.71	1.02
25:BD:61:THR:OG1	25:BD:63:PRO:HD2	1.60	1.02
44:BW:28:GLU:HB3	44:BW:31:LEU:CD2	1.88	1.02
44:BW:51:GLY:HA3	44:BW:59:PHE:CZ	1.94	1.02
53:CA:1086:U:H5'	53:CA:1086:U:H6	1.18	1.02
53:CA:1221:G:H4'	19:CS:35:ARG:NH2	1.74	1.02
22:DA:2092:U:O2'	22:DA:2093:G:H5'	1.60	1.02
2:AB:69:VAL:HB	2:AB:162:VAL:HG12	1.42	1.02
14:AN:15:LEU:HD23	14:AN:18:LYS:HD2	1.38	1.02
15:AO:63:ARG:HD3	15:AO:87:ARG:NH2	1.73	1.02
4:CD:25:ARG:HH12	4:CD:30:LYS:HG2	1.17	1.02
5:CE:76:ASN:O	5:CE:79:THR:HG22	1.58	1.02
22:DA:1731:G:O2'	22:DA:1732:C:H5''	1.60	1.02
1:AA:1411:C:C2'	1:AA:1412:C:H5'	1.90	1.01
11:AK:109:ILE:HB	21:AU:5:VAL:CG2	1.90	1.01
33:BL:74:THR:HG22	33:BL:107:PHE:HB2	1.40	1.01
22:DA:197:A:N6	22:DA:2430:A:H2'	1.74	1.01
22:DA:1635:A:O2'	22:DA:1636:U:H5'	1.60	1.01
22:DA:1931:U:H2'	22:DA:1932:A:H8	1.18	1.01
1:AA:430:A:O2'	1:AA:431:A:H5'	1.60	1.01
13:AM:2:ARG:O	13:AM:3:ILE:HG12	1.60	1.01
37:BP:21:PRO:HA	37:BP:46:VAL:CG1	1.91	1.01
53:CA:1249:C:H2'	53:CA:1250:A:H5''	1.39	1.01
21:CU:16:ARG:CG	21:CU:19:LYS:HG2	1.90	1.01
45:DX:53:LYS:HA	45:DX:56:ARG:HB3	1.41	1.01
22:BA:1784:A:H4'	22:BA:1785:A:O5'	1.58	1.01
22:BA:2150:C:H2'	22:BA:2151:U:C5	1.95	1.01
50:B2:3:ARG:HH21	50:B2:3:ARG:HG2	1.20	1.01
53:CA:1299:A:H2'	53:CA:1299:A:N3	1.71	1.01
22:DA:922:C:H1'	44:DW:22:VAL:HG21	1.35	1.01
12:AL:24:GLU:HB2	12:AL:26:CYS:SG	1.99	1.01
19:AS:28:LYS:HB3	19:AS:29:PRO:HD2	1.42	1.01
33:BL:93:ASN:HD22	33:BL:94:THR:N	1.58	1.01
53:CA:238:A:C2'	53:CA:239:U:H5''	1.91	1.01
4:CD:55:ARG:HA	4:CD:55:ARG:HH11	1.21	1.01
9:CI:51:LEU:HG	9:CI:86:LEU:CD2	1.91	1.01
22:DA:861:A:H2'	22:DA:862:G:H8	1.23	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:124:ARG:HD3	25:DD:125:TRP:NE1	1.76	1.01
29:DH:93:SER:HB3	29:DH:121:VAL:HG21	1.40	1.01
22:BA:1045:C:C5'	22:BA:1046:A:H5'	1.90	1.01
54:CG:134:VAL:HB	54:CG:137:ARG:HH21	1.22	1.01
22:DA:2063:C:O2'	22:DA:2064:C:H5'	1.61	1.01
15:AO:63:ARG:HG2	15:AO:87:ARG:HH12	1.24	1.00
31:BJ:6:ALA:HB3	31:BJ:45:THR:HG21	1.41	1.00
33:BL:109:LYS:HG2	33:BL:126:ARG:HB3	1.41	1.00
38:BQ:93:ILE:HG23	38:BQ:94:LEU:H	1.26	1.00
38:BQ:97:ILE:HD11	38:BQ:105:PHE:HB2	1.41	1.00
2:CB:93:HIS:ND1	2:CB:145:ASN:O	1.94	1.00
8:CH:76:ARG:HD3	8:CH:77:VAL:H	1.20	1.00
10:CJ:57:VAL:HG22	10:CJ:58:ASN:H	1.22	1.00
22:DA:573:U:H4'	22:DA:574:A:OP1	1.59	1.00
22:DA:802:A:H2'	22:DA:803:U:C6	1.94	1.00
22:DA:1508:A:H4'	22:DA:1509:A:OP1	1.58	1.00
37:DP:91:VAL:HG22	37:DP:109:ILE:HG21	1.43	1.00
1:AA:1319:A:H4'	1:AA:1320:C:OP1	1.61	1.00
2:AB:42:LEU:HG	2:AB:43:GLU:HG3	1.42	1.00
16:AP:4:ILE:HG12	16:AP:21:VAL:HG22	1.40	1.00
22:BA:265:A:H4'	22:BA:266:G:OP1	1.57	1.00
37:BP:4:ILE:HG22	37:BP:5:LYS:H	1.26	1.00
51:B3:31:ILE:HD11	51:B3:34:LYS:HD2	1.43	1.00
52:B4:9:LYS:HD3	52:B4:9:LYS:H	1.21	1.00
53:CA:245:U:O2'	53:CA:246:A:H5'	1.60	1.00
24:DC:144:GLU:HB3	24:DC:187:CYS:HB2	1.43	1.00
1:AA:94:G:H4'	1:AA:95:C:O5'	1.59	1.00
1:AA:747:A:H5'	1:AA:748:G:OP2	1.61	1.00
11:AK:87:GLY:H	11:AK:113:THR:CG2	1.75	1.00
24:BC:180:MET:HG3	24:BC:268:ARG:HH11	1.27	1.00
41:BT:30:ILE:HG23	41:BT:85:VAL:HB	1.44	1.00
44:BW:46:ALA:HB3	44:BW:79:ILE:O	1.62	1.00
22:DA:412:A:O2'	22:DA:413:C:H5'	1.62	1.00
22:DA:2283:C:O2'	22:DA:2284:A:H5'	1.61	1.00
29:DH:80:ILE:HB	29:DH:101:ASP:CB	1.90	1.00
21:AU:9:GLU:HG3	21:AU:10:PRO:CD	1.92	1.00
22:BA:1084:A:H2'	22:BA:1085:A:H8	1.23	1.00
41:BT:67:VAL:HG12	41:BT:76:ARG:HG3	1.41	1.00
11:CK:78:ILE:H	11:CK:78:ILE:HD13	1.22	1.00
22:DA:61:C:O2'	22:DA:62:U:H5'	1.62	1.00
22:DA:2321:U:O2	22:DA:2321:U:H3'	1.62	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:90:C:H5''	23:BB:90:C:H6	1.26	1.00
23:BB:116:G:H4'	36:BO:54:VAL:HG22	1.43	1.00
22:DA:834:G:H1'	22:DA:2358:A:N3	1.75	1.00
22:BA:1060:U:H4'	22:BA:1061:U:H5'	1.01	1.00
53:CA:1152:A:H2'	53:CA:1153:G:H8	1.19	1.00
10:CJ:40:ILE:HG22	10:CJ:42:LEU:HD12	1.43	1.00
22:DA:1555:G:O2'	22:DA:1556:C:H5'	1.62	1.00
22:DA:1965:C:H3'	22:DA:1966:A:C5'	1.92	1.00
29:DH:1:MET:HE3	29:DH:23:ALA:HB2	1.43	1.00
1:AA:982:U:H4'	1:AA:983:A:O5'	1.59	1.00
2:AB:108:GLN:HG2	2:AB:109:SER:H	1.27	1.00
22:BA:2203:U:H5''	22:BA:2204:G:OP1	1.62	1.00
53:CA:1068:G:O2'	53:CA:1069:C:H5'	1.60	1.00
2:CB:19:THR:HG22	2:CB:37:VAL:HG23	1.41	1.00
3:CC:109:GLU:HG2	3:CC:139:ASN:HB2	1.42	1.00
12:CL:42:LYS:HG2	12:CL:43:LYS:H	1.26	1.00
22:DA:1237:A:C2	22:DA:1238:G:H1'	1.96	1.00
29:DH:90:LEU:HB2	29:DH:123:ARG:HB3	1.40	1.00
31:BJ:21:THR:HG22	31:BJ:22:GLY:N	1.74	0.99
46:BY:32:ALA:CB	46:BY:37:LEU:HD12	1.92	0.99
53:CA:982:U:H1'	53:CA:983:A:N7	1.77	0.99
22:DA:232:G:H4'	22:DA:233:A:OP1	1.61	0.99
24:DC:75:ALA:HB2	24:DC:95:TYR:CD1	1.97	0.99
25:DD:106:LYS:HB3	25:DD:206:ALA:CB	1.91	0.99
1:AA:1129:C:C5'	9:AI:17:ARG:HH22	1.74	0.99
1:AA:1395:C:H5'	1:AA:1395:C:C6	1.95	0.99
35:BN:103:ARG:HD3	35:BN:110:MET:CE	1.92	0.99
22:DA:647:G:H2'	22:DA:648:G:H8	1.23	0.99
22:DA:862:G:H2'	22:DA:863:A:H8	1.26	0.99
44:DW:23:LYS:HD2	44:DW:24:ARG:N	1.78	0.99
1:AA:94:G:H4'	1:AA:95:C:H5''	1.42	0.99
10:AJ:80:THR:HB	10:AJ:83:THR:HG22	1.43	0.99
22:BA:855:G:H21	44:BW:23:LYS:HG2	1.22	0.99
22:BA:958:U:H5'	22:BA:958:U:H6	1.22	0.99
31:BJ:99:ARG:O	31:BJ:103:ILE:HG23	1.62	0.99
41:BT:29:THR:HG22	41:BT:86:THR:HG22	1.44	0.99
44:BW:19:ARG:HA	44:BW:34:SER:HA	1.44	0.99
53:CA:1143:G:H2'	53:CA:1144:G:H8	1.25	0.99
22:DA:1069:A:O2'	22:DA:1070:A:H5'	1.63	0.99
32:DK:71:ARG:CB	32:DK:72:PRO:HD3	1.91	0.99
31:BJ:73:VAL:HG23	31:BJ:74:TYR:H	1.23	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:18:LYS:CA	44:BW:36:ILE:HG13	1.91	0.99
24:DC:62:ARG:HG2	24:DC:62:ARG:HH21	1.28	0.99
2:AB:89:PHE:HB3	2:AB:149:GLY:CA	1.92	0.99
7:AG:26:VAL:HG12	7:AG:42:VAL:HG21	1.41	0.99
16:AP:22:ALA:HB2	16:AP:32:PHE:HA	1.40	0.99
22:BA:232:G:H4'	22:BA:233:A:OP1	1.61	0.99
27:BF:129:MET:HG3	27:BF:153:ILE:CD1	1.92	0.99
3:CC:26:LYS:HA	3:CC:26:LYS:HE3	1.39	0.99
22:DA:861:A:H2'	22:DA:862:G:C8	1.97	0.99
35:DN:37:THR:HG22	35:DN:39:PRO:CD	1.93	0.99
1:AA:1127:G:O2'	1:AA:1128:C:H5'	1.62	0.99
2:AB:116:LEU:HD12	2:AB:140:LEU:HD11	1.43	0.99
22:BA:1799:G:H4'	22:BA:1800:C:O5'	1.61	0.99
24:BC:12:ARG:HH11	24:BC:12:ARG:HG2	1.28	0.99
52:B4:36:ARG:HG2	52:B4:37:GLN:H	1.21	0.99
4:CD:2:ARG:NH2	4:CD:114:ARG:HH11	1.60	0.99
22:DA:876:C:H3'	22:DA:877:A:H8	1.25	0.99
22:DA:2304:G:H22	22:DA:2312:U:H3	1.00	0.99
33:BL:29:LYS:HG2	33:BL:30:THR:HG23	1.41	0.99
53:CA:1124:G:H4'	53:CA:1125:U:OP1	1.54	0.99
22:DA:197:A:H62	22:DA:2430:A:C2'	1.75	0.99
28:DG:18:ILE:HD12	28:DG:42:VAL:HG13	1.43	0.99
4:AD:43:ARG:O	4:AD:45:PRO:HD3	1.60	0.99
7:AG:114:SER:HB3	7:AG:117:LEU:HG	1.44	0.99
12:AL:33:CYS:HA	12:AL:54:VAL:HA	1.45	0.99
27:BF:134:GLN:H	27:BF:134:GLN:NE2	1.59	0.99
18:CR:72:ARG:HE	18:CR:72:ARG:H	1.10	0.99
22:DA:2408:U:O2'	22:DA:2409:G:H5'	1.63	0.99
38:DQ:57:ARG:NH1	38:DQ:92:LYS:HE2	1.77	0.99
25:BD:99:GLU:CG	25:BD:100:LEU:H	1.72	0.99
25:BD:151:THR:HG22	25:BD:152:PRO:CD	1.93	0.99
22:DA:2646:C:H5'	22:DA:2646:C:C6	1.96	0.99
22:DA:2875:C:O2'	22:DA:2876:G:H8	1.44	0.99
4:AD:172:VAL:HG22	4:AD:173:ASP:H	1.27	0.99
40:BS:73:LYS:HE3	40:BS:73:LYS:HA	1.45	0.99
53:CA:243:A:H4'	53:CA:244:U:H5'	1.44	0.99
53:CA:1182:G:H4'	53:CA:1183:U:H5'	1.03	0.99
22:DA:1731:G:H4'	22:DA:1732:C:OP1	1.61	0.99
32:DK:7:MET:HA	32:DK:7:MET:CE	1.89	0.99
22:DA:2267:A:N6	22:DA:2272:U:H3	1.61	0.98
14:AN:60:ARG:O	14:AN:61:ASN:HB2	1.62	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:27:GLY:HA2	44:DW:31:LEU:CD1	1.93	0.98
6:AF:3:HIS:H	6:AF:92:THR:HG23	1.24	0.98
19:AS:50:VAL:HG21	19:AS:70:LEU:HB3	1.45	0.98
53:CA:547:A:H4'	53:CA:548:G:O5'	1.62	0.98
5:AE:11:GLN:HE21	5:AE:11:GLN:HA	1.27	0.98
31:BJ:81:ILE:HG23	31:BJ:82:GLY:H	1.26	0.98
6:CF:86:ARG:NH1	18:CR:63:TYR:HB3	1.76	0.98
22:DA:1669:A:H2'	22:DA:1669:A:N3	1.74	0.98
58:DF:43:ILE:HG23	58:DF:44:ALA:H	1.26	0.98
4:AD:25:ARG:HH11	4:AD:30:LYS:HE3	1.27	0.98
4:CD:77:GLU:HG3	4:CD:81:LEU:HD11	1.45	0.98
55:CM:12:LYS:HA	55:CM:12:LYS:HE3	1.43	0.98
22:DA:1116:G:C2	22:DA:1117:C:C5	2.51	0.98
24:DC:147:PRO:HD3	24:DC:184:GLU:HG3	1.40	0.98
8:AH:6:ILE:HB	8:AH:76:ARG:HH12	1.24	0.98
22:BA:2790:U:H4'	22:BA:2791:G:OP1	1.58	0.98
37:BP:50:ARG:CD	37:BP:56:SER:HB3	1.93	0.98
34:DM:42:THR:HG22	34:DM:44:ARG:H	1.26	0.98
1:AA:267:C:O2'	1:AA:268:U:H5'	1.63	0.98
12:AL:89:LEU:HB3	12:AL:92:VAL:HG21	1.43	0.98
22:BA:1967:C:O2'	22:BA:1968:G:H5'	1.64	0.98
22:BA:2637:U:C2'	22:BA:2638:G:H5'	1.94	0.98
39:BR:51:VAL:HB	39:BR:52:PRO:CD	1.93	0.98
53:CA:721:G:H4'	53:CA:722:G:O5'	1.63	0.98
53:CA:1329:A:H5''	55:CM:25:GLY:H	1.27	0.98
53:CA:1452:C:H4'	53:CA:1453:G:O5'	1.60	0.98
22:DA:2346:A:H3'	22:DA:2347:C:H5''	1.44	0.98
11:AK:126:ARG:HB2	21:AU:33:ARG:HH12	1.22	0.98
24:BC:251:THR:HG22	24:BC:252:LYS:H	1.27	0.98
55:CM:64:VAL:HG12	55:CM:65:GLU:H	1.28	0.98
31:DJ:73:VAL:HG23	31:DJ:74:TYR:H	1.28	0.98
1:AA:1021:A:C2'	1:AA:1022:A:H5''	1.94	0.98
12:AL:49:ARG:HG2	12:AL:49:ARG:NH1	1.73	0.98
22:DA:302:C:O2'	22:DA:303:G:H8	1.45	0.98
35:DN:92:GLY:H	35:DN:94:TYR:HE1	1.08	0.98
32:BK:18:ARG:H	32:BK:45:GLU:HB2	1.28	0.98
52:B4:9:LYS:H	52:B4:9:LYS:CD	1.77	0.98
2:CB:162:VAL:HG13	2:CB:184:ALA:HB2	1.45	0.98
22:DA:1056:G:H1'	22:DA:1103:A:H61	1.27	0.98
22:DA:1116:G:C2	22:DA:1117:C:C6	2.52	0.98
22:DA:1931:U:H2'	22:DA:1932:A:C8	1.99	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:17:ALA:O	44:DW:18:LYS:HB3	1.64	0.98
1:AA:842:U:H3'	1:AA:843:U:C5'	1.94	0.97
22:BA:923:G:N3	44:BW:23:LYS:HE2	1.78	0.97
23:BB:30:C:C2'	23:BB:31:C:H5'	1.94	0.97
53:CA:120:A:C3'	53:CA:121:U:H5''	1.92	0.97
11:CK:74:LYS:HA	11:CK:78:ILE:HD11	1.46	0.97
22:DA:2094:A:O2'	22:DA:2095:A:H5''	1.63	0.97
58:DF:74:ALA:HB3	58:DF:78:ILE:HB	1.46	0.97
1:AA:204:G:H3'	1:AA:205:A:C5'	1.91	0.97
1:AA:495:A:H4'	1:AA:496:A:O5'	1.62	0.97
53:CA:374:A:H5''	53:CA:452:A:N1	1.79	0.97
1:AA:206:C:H2'	1:AA:207:C:O4'	1.63	0.97
22:BA:2197:U:O2'	22:BA:2198:A:C2'	2.11	0.97
38:BQ:65:ASN:HD21	38:BQ:69:ARG:HH22	1.02	0.97
53:CA:94:G:H4'	53:CA:95:C:OP1	1.63	0.97
42:DU:47:PRO:HB3	42:DU:54:PRO:HG3	1.44	0.97
1:AA:411:A:O2'	1:AA:413:G:H5''	1.63	0.97
26:BE:119:ILE:HD11	26:BE:187:VAL:HA	1.44	0.97
36:BO:31:THR:HG22	36:BO:34:HIS:H	1.30	0.97
44:BW:51:GLY:HA3	44:BW:59:PHE:CE2	1.99	0.97
54:CG:88:VAL:HG22	54:CG:89:GLU:H	1.28	0.97
40:DS:29:VAL:HG11	40:DS:55:ILE:HD11	1.46	0.97
25:BD:51:THR:HG21	25:BD:68:PHE:HE2	1.26	0.97
41:BT:39:THR:HB	41:BT:42:GLU:CB	1.93	0.97
22:DA:335:C:O2'	22:DA:336:C:H6	1.46	0.97
22:DA:1458:U:O3'	22:DA:1459:G:H4'	1.64	0.97
22:DA:2807:U:H3'	22:DA:2808:G:H5''	1.42	0.97
37:DP:9:GLN:HB3	37:DP:12:MET:CE	1.94	0.97
45:DX:31:ASN:HD22	45:DX:31:ASN:H	1.11	0.97
54:CG:45:ALA:HB1	54:CG:120:ALA:HB2	1.45	0.97
22:DA:1391:U:H4'	41:DT:19:LYS:HZ1	1.29	0.97
28:BG:104:LEU:HB2	28:BG:112:VAL:HG21	1.42	0.97
44:DW:13:ARG:HG3	44:DW:14:ASP:H	1.29	0.97
22:DA:915:C:O2'	22:DA:916:G:H5'	1.62	0.97
37:DP:91:VAL:HG11	37:DP:96:LEU:HD11	1.45	0.97
21:AU:16:ARG:NH1	21:AU:19:LYS:HG3	1.79	0.97
28:BG:120:ILE:HD13	28:BG:121:THR:N	1.79	0.97
22:DA:915:C:H2'	22:DA:916:G:C8	1.99	0.97
22:DA:921:C:H2'	22:DA:922:C:H5'	1.41	0.97
25:DD:137:SER:C	25:DD:138:LEU:HD22	1.89	0.97
29:DH:93:SER:CB	29:DH:121:VAL:HG21	1.94	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1056:G:H5''	22:BA:1057:A:H5'	1.46	0.97
33:BL:110:VAL:O	33:BL:111:ILE:HB	1.62	0.97
45:BX:34:SER:HA	45:BX:49:ARG:HA	1.47	0.97
2:CB:89:PHE:HE2	2:CB:152:ASP:HB2	1.29	0.97
4:CD:30:LYS:HD3	4:CD:30:LYS:N	1.78	0.97
44:BW:43:LYS:HE2	44:BW:68:PHE:HE1	1.30	0.96
46:BY:56:LEU:O	46:BY:57:LEU:HB3	1.64	0.96
52:B4:10:LEU:HB2	52:B4:33:HIS:HD2	1.28	0.96
58:DF:177:ARG:NE	58:DF:178:LYS:H	1.63	0.96
1:AA:89:U:O2'	1:AA:90:C:H5''	1.65	0.96
53:CA:1228:C:HO2'	53:CA:1229:A:H8	1.05	0.96
22:DA:1346:G:O2'	22:DA:1347:A:H8	1.48	0.96
22:DA:1760:C:H2'	22:DA:1761:C:H6	1.26	0.96
5:AE:93:VAL:HG21	5:AE:139:THR:HG22	1.45	0.96
22:BA:528:A:H5''	31:BJ:116:ARG:HH22	1.27	0.96
27:BF:43:ILE:HG22	27:BF:82:TYR:HE1	1.30	0.96
28:BG:73:SER:HA	28:BG:76:ILE:CG2	1.94	0.96
29:BH:90:LEU:HB2	29:BH:123:ARG:HB3	1.46	0.96
31:BJ:44:TYR:CD2	38:BQ:63:ARG:HG2	2.00	0.96
37:BP:112:ARG:C	37:BP:113:LEU:HD23	1.90	0.96
37:BP:21:PRO:HA	37:BP:46:VAL:HG12	1.42	0.96
56:CP:22:ALA:HA	56:CP:33:ILE:HG13	1.46	0.96
25:BD:12:THR:HG22	25:BD:13:ARG:N	1.80	0.96
36:BO:49:VAL:HG21	36:BO:82:ALA:HA	1.47	0.96
53:CA:320:A:O2'	53:CA:1435:G:H1'	1.66	0.96
22:DA:2714:G:H2'	22:DA:2715:C:H6	1.27	0.96
25:DD:106:LYS:HB3	25:DD:206:ALA:HB3	1.44	0.96
40:BS:88:ARG:HH21	40:BS:88:ARG:CG	1.78	0.96
53:CA:197:A:C6	53:CA:221:C:H4'	2.01	0.96
53:CA:664:G:H22	53:CA:741:G:H1	1.07	0.96
26:DE:149:ILE:HG23	26:DE:188:MET:CA	1.96	0.96
22:DA:484:C:HO2'	22:DA:485:C:H6	1.08	0.96
30:DI:74:PRO:HB2	30:DI:77:VAL:HG22	1.46	0.96
9:AI:98:ARG:HG2	9:AI:103:VAL:HG21	1.41	0.96
22:DA:82:U:H2'	22:DA:83:A:H5''	1.48	0.96
30:DI:113:ALA:HB1	30:DI:124:MET:SD	2.06	0.96
35:DN:62:ASN:O	35:DN:63:ARG:HB2	1.65	0.96
51:D3:15:LYS:HZ1	51:D3:19:GLY:HA2	1.27	0.96
52:D4:16:ILE:CG1	52:D4:25:VAL:HG22	1.93	0.96
1:AA:8:A:H62	4:AD:204:SER:HB2	1.31	0.96
22:BA:137:U:H5''	22:BA:140:C:C5	2.00	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:186:LEU:HD11	37:BP:3:ILE:HD11	1.48	0.96
38:BQ:97:ILE:HD11	38:BQ:105:PHE:CB	1.95	0.96
22:DA:876:C:H5''	22:DA:876:C:O2	1.65	0.96
22:DA:2585:U:O2'	22:DA:2586:U:H5'	1.66	0.96
24:DC:146:LYS:HB2	24:DC:149:LYS:HB2	1.44	0.96
31:DJ:17:VAL:HG23	31:DJ:137:PRO:HB2	1.48	0.96
22:BA:571:U:H4'	22:BA:572:A:OP1	1.63	0.96
28:BG:73:SER:HA	28:BG:76:ILE:HG22	1.48	0.96
53:CA:1202:U:H2'	53:CA:1203:C:H6	1.31	0.96
11:CK:27:ASN:N	11:CK:27:ASN:HD22	1.64	0.96
22:DA:1673:G:C2'	22:DA:1674:G:H5'	1.96	0.96
2:AB:20:ARG:HA	2:AB:20:ARG:NH1	1.81	0.95
5:AE:153:ALA:CA	5:AE:156:ARG:HB2	1.95	0.95
6:AF:3:HIS:H	6:AF:92:THR:CG2	1.78	0.95
22:BA:675:A:H4'	26:BE:62:GLN:NE2	1.81	0.95
53:CA:1045:C:H2'	53:CA:1046:A:H5'	1.46	0.95
22:DA:1116:G:N3	22:DA:1117:C:C6	2.33	0.95
21:AU:9:GLU:HG3	21:AU:10:PRO:HD3	0.97	0.95
28:BG:59:ASP:HB2	28:BG:63:GLN:HG2	1.45	0.95
31:BJ:124:VAL:HG23	31:BJ:125:TYR:H	1.28	0.95
53:CA:1157:A:H4'	53:CA:1158:C:O5'	1.64	0.95
54:CG:63:VAL:HG11	54:CG:127:ALA:HB2	1.48	0.95
22:DA:2135:A:H3'	22:DA:2136:G:C5'	1.95	0.95
22:BA:1509:A:H1'	22:BA:1510:G:H5'	1.47	0.95
31:BJ:37:ARG:HA	31:BJ:118:MET:HE2	1.45	0.95
32:BK:116:ILE:HD12	32:BK:117:SER:N	1.82	0.95
40:BS:88:ARG:HG2	40:BS:88:ARG:NH2	1.73	0.95
41:BT:39:THR:HG22	41:BT:41:ALA:HB3	1.46	0.95
3:CC:166:TRP:O	3:CC:167:TYR:HB2	1.66	0.95
17:CQ:3:LYS:HZ3	17:CQ:6:THR:HG21	1.30	0.95
17:CQ:46:HIS:HB2	17:CQ:70:LYS:HE3	1.45	0.95
22:DA:1965:C:H3'	22:DA:1966:A:H5''	1.43	0.95
22:DA:2439:A:H4'	22:DA:2440:C:O5'	1.64	0.95
16:AP:73:ALA:O	16:AP:77:GLU:HB2	1.66	0.95
2:CB:130:LYS:HA	2:CB:133:ALA:HB3	1.48	0.95
22:DA:1399:C:O2'	22:DA:1400:U:H5'	1.66	0.95
44:DW:27:GLY:HA2	44:DW:31:LEU:HD11	0.98	0.95
44:DW:40:ARG:HH11	44:DW:40:ARG:CG	1.79	0.95
46:DY:1:MET:N	46:DY:1:MET:HE2	1.81	0.95
51:D3:41:ARG:HG3	51:D3:41:ARG:HH21	1.29	0.95
36:BO:59:ALA:HA	36:BO:62:LEU:CD1	1.96	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:83:A:H61	22:DA:101:A:H5'	1.31	0.95
22:DA:2378:A:H2'	22:DA:2379:G:H5'	1.48	0.95
6:AF:86:ARG:CZ	18:AR:63:TYR:HB3	1.96	0.95
27:BF:40:GLY:HA2	27:BF:84:ILE:HD11	1.45	0.95
33:BL:19:LEU:HB2	33:BL:27:LEU:HD22	1.45	0.95
38:BQ:93:ILE:HG23	38:BQ:94:LEU:N	1.77	0.95
53:CA:960:U:O2'	53:CA:1223:C:H4'	1.67	0.95
53:CA:1458:G:O2'	20:CT:22:SER:HB3	1.65	0.95
54:CG:59:GLU:OE2	54:CG:63:VAL:HG23	1.65	0.95
31:BJ:6:ALA:CB	31:BJ:45:THR:HG21	1.97	0.95
40:BS:59:GLU:HA	40:BS:64:ALA:HB2	1.48	0.95
22:DA:1307:A:N6	22:DA:1606:C:H6	1.65	0.95
9:AI:51:LEU:HB3	9:AI:56:MET:HG2	1.48	0.95
53:CA:1218:C:H2'	53:CA:1219:A:C8	2.02	0.95
2:CB:74:ALA:HB1	2:CB:206:ILE:HD11	1.49	0.95
29:DH:132:PHE:CZ	29:DH:134:VAL:HB	2.00	0.95
32:DK:71:ARG:HB3	32:DK:72:PRO:HD3	0.97	0.95
1:AA:974:A:H4'	1:AA:975:A:H5'	1.44	0.95
7:AG:61:PHE:CE1	7:AG:65:LEU:HD22	2.01	0.95
22:BA:1073:A:H2'	22:BA:1074:G:C5'	1.97	0.95
40:BS:84:ARG:HB2	40:BS:96:ILE:HD11	1.48	0.95
8:CH:1:SER:HB3	8:CH:3:GLN:HG3	1.45	0.95
8:CH:93:LYS:HD3	8:CH:93:LYS:H	1.30	0.95
58:DF:42:ALA:HB2	58:DF:49:LEU:HD21	1.48	0.95
29:DH:3:VAL:HG12	29:DH:38:PRO:HA	1.49	0.95
25:BD:99:GLU:HG3	25:BD:100:LEU:N	1.79	0.95
38:BQ:69:ARG:HB2	38:BQ:69:ARG:NH2	1.81	0.95
41:BT:61:LEU:C	41:BT:61:LEU:HD12	1.92	0.95
22:DA:207:A:H2'	22:DA:208:C:H6	1.32	0.95
1:AA:451:A:H4'	1:AA:452:A:O5'	1.66	0.94
1:AA:1157:A:H1'	1:AA:1181:G:C2	2.02	0.94
8:AH:105:THR:HG21	8:AH:120:LEU:HD13	1.48	0.94
46:BY:7:ARG:H	46:BY:60:LYS:HZ1	1.03	0.94
54:CG:91:ARG:HG2	54:CG:92:PRO:CD	1.97	0.94
55:CM:33:LEU:HB3	55:CM:38:ILE:HB	1.47	0.94
22:DA:395:U:HO2'	22:DA:396:G:H8	1.00	0.94
22:DA:1391:U:H4'	41:DT:19:LYS:NZ	1.82	0.94
40:DS:20:VAL:HG23	40:DS:23:LEU:HD12	1.46	0.94
12:AL:43:LYS:HB2	12:AL:44:PRO:CD	1.97	0.94
38:BQ:27:ARG:HH11	38:BQ:27:ARG:CG	1.80	0.94
53:CA:990:C:H2'	53:CA:991:U:O4'	1.68	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1278:G:H4'	53:CA:1279:G:C5'	1.97	0.94
12:CL:79:ILE:HD12	12:CL:96:THR:HG21	1.49	0.94
57:DB:58:A:H2'	57:DB:59:A:H8	1.29	0.94
57:DB:112:G:H21	36:DO:45:SER:HA	1.31	0.94
38:DQ:91:ARG:NH1	39:DR:10:LYS:HB3	1.82	0.94
44:DW:49:ASN:ND2	44:DW:81:ILE:HG23	1.82	0.94
3:AC:76:ILE:HA	3:AC:83:VAL:HG23	1.45	0.94
3:AC:143:LEU:H	3:AC:143:LEU:HD22	1.28	0.94
4:AD:36:ALA:HA	4:AD:41:GLY:HA3	1.43	0.94
4:AD:129:VAL:HG13	4:AD:131:ILE:CD1	1.96	0.94
6:AF:16:GLU:HG2	4:CD:191:SER:HB2	0.95	0.94
22:BA:1929:G:H4'	22:BA:1930:G:OP1	1.65	0.94
28:BG:23:ILE:H	28:BG:23:ILE:HD12	1.31	0.94
30:BI:15:GLY:HA2	30:BI:50:LYS:HB3	1.47	0.94
33:BL:30:THR:O	33:BL:33:ARG:HG2	1.68	0.94
26:DE:128:ALA:HB1	26:DE:129:PRO:HD2	1.48	0.94
33:DL:117:THR:HG22	33:DL:118:THR:H	1.32	0.94
45:DX:6:VAL:HG22	45:DX:7:THR:HG23	1.49	0.94
50:D2:34:ARG:HB3	50:D2:42:LEU:HD11	1.45	0.94
1:AA:110:C:H2'	1:AA:111:G:C8	2.02	0.94
1:AA:439:U:H2'	1:AA:440:C:H5'	1.48	0.94
22:DA:975:A:O2'	22:DA:976:G:H8	1.49	0.94
22:DA:2668:G:HO2'	22:DA:2669:G:H8	1.15	0.94
32:DK:118:LEU:C	32:DK:120:PRO:HD2	1.91	0.94
35:DN:71:ARG:HH21	35:DN:71:ARG:HB2	1.31	0.94
40:DS:24:ILE:HG22	40:DS:35:ILE:HD11	1.48	0.94
24:BC:166:ARG:O	24:BC:166:ARG:HG3	1.64	0.94
28:BG:120:ILE:HD11	28:BG:132:LEU:HB2	1.46	0.94
44:BW:76:ARG:HH21	44:BW:76:ARG:CG	1.81	0.94
46:BY:9:LYS:HB3	46:BY:12:GLU:HG3	1.47	0.94
52:B4:10:LEU:HB2	52:B4:33:HIS:CD2	2.01	0.94
2:CB:163:ILE:HG23	2:CB:185:ILE:HD11	1.48	0.94
20:CT:2:ASN:N	20:CT:7:LYS:HZ3	1.64	0.94
22:DA:247:G:H4'	22:DA:386:G:C5	2.01	0.94
22:DA:2291:U:H2'	22:DA:2292:U:C6	2.02	0.94
22:DA:2360:G:H1'	33:DL:60:ARG:HH21	1.30	0.94
37:DP:50:ARG:HB3	37:DP:57:ALA:H	1.32	0.94
45:DX:53:LYS:HA	45:DX:56:ARG:CB	1.96	0.94
4:AD:55:ARG:HH12	4:AD:58:GLN:HG2	1.32	0.94
14:AN:40:ARG:NH1	14:AN:44:VAL:HG11	1.82	0.94
17:AQ:45:VAL:HG21	17:AQ:60:ILE:CD1	1.96	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:5:VAL:H	25:BD:32:ASN:HD21	1.01	0.94
53:CA:1143:G:H2'	53:CA:1144:G:C8	2.01	0.94
53:CA:1279:G:H5''	10:CJ:9:ARG:HH22	1.31	0.94
53:CA:1285:A:H4'	53:CA:1286:U:OP1	1.66	0.94
54:CG:68:VAL:HG22	54:CG:134:VAL:HG12	1.50	0.94
54:CG:100:MET:CE	54:CG:100:MET:H	1.81	0.94
22:DA:2748:A:H1'	28:DG:66:THR:HG22	1.49	0.94
31:DJ:44:TYR:HB2	38:DQ:63:ARG:CZ	1.97	0.94
45:DX:63:ILE:CD1	45:DX:64:ASP:H	1.80	0.94
1:AA:619:U:H3	4:AD:130:ASN:HB3	1.30	0.94
3:AC:156:LEU:HD12	3:AC:156:LEU:H	1.30	0.94
11:AK:126:ARG:CB	21:AU:33:ARG:HH12	1.80	0.94
22:BA:1070:A:C2	30:BI:9:LYS:HG2	2.03	0.94
29:BH:18:GLN:HE21	29:BH:18:GLN:HA	1.30	0.94
33:BL:91:ASP:H	33:BL:94:THR:HG21	1.32	0.94
53:CA:348:G:H2'	53:CA:349:A:H8	1.33	0.94
2:CB:46:VAL:HG13	2:CB:47:PRO:CD	1.98	0.94
6:CF:90:MET:CE	18:CR:60:ARG:HD3	1.98	0.94
22:DA:616:A:HO2'	22:DA:617:G:H8	1.00	0.94
22:DA:1026:G:O2'	22:DA:1027:A:H5'	1.67	0.94
22:DA:1069:A:H4'	22:DA:1070:A:O5'	1.68	0.94
22:DA:1857:G:H1'	22:DA:1884:G:H22	1.30	0.94
57:DB:69:G:C8	57:DB:70:C:C5	2.55	0.94
28:DG:112:VAL:HG13	28:DG:150:TYR:HE1	1.33	0.94
41:DT:29:THR:HB	41:DT:87:LEU:H	1.33	0.94
42:DU:58:VAL:CG1	42:DU:60:LYS:HG2	1.98	0.94
8:AH:110:MET:HE2	8:AH:114:ALA:HB1	1.50	0.94
17:AQ:31:PRO:HB2	17:AQ:32:ILE:HD12	1.45	0.94
22:BA:250:G:H2'	22:BA:251:A:C8	2.03	0.94
27:BF:129:MET:CE	27:BF:153:ILE:HD11	1.98	0.94
35:BN:72:ASP:OD1	35:BN:75:ILE:HG23	1.68	0.94
37:BP:50:ARG:CG	37:BP:57:ALA:N	2.31	0.94
12:CL:43:LYS:HB3	12:CL:44:PRO:HD2	0.95	0.94
51:D3:35:LYS:CB	51:D3:40:LYS:HD3	1.97	0.94
1:AA:795:C:H5''	1:AA:796:C:OP2	1.67	0.94
1:AA:1468:A:C2'	1:AA:1469:C:H5''	1.98	0.94
2:AB:36:LYS:HA	2:AB:36:LYS:HE3	1.49	0.94
5:AE:80:LEU:HD23	5:AE:122:VAL:CG1	1.96	0.94
29:BH:8:LYS:O	29:BH:9:VAL:HB	1.66	0.94
22:DA:946:C:HO2'	22:DA:947:A:H8	0.97	0.94
7:AG:121:ASN:O	7:AG:125:ASP:HB2	1.68	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:960:U:C5'	53:CA:961:U:H5''	1.98	0.93
22:DA:118:A:N3	22:DA:178:G:H1'	1.83	0.93
24:BC:16:VAL:N	24:BC:203:VAL:HG12	1.81	0.93
31:BJ:2:LYS:HD3	31:BJ:2:LYS:N	1.83	0.93
41:BT:32:LEU:H	41:BT:83:ALA:HB3	1.30	0.93
22:DA:1126:A:H4'	22:DA:1127:A:O5'	1.68	0.93
22:DA:2311:A:H4'	22:DA:2312:U:OP2	1.66	0.93
57:DB:45:A:H2'	57:DB:46:A:C8	2.02	0.93
2:AB:127:LYS:HG3	2:AB:128:LEU:H	1.32	0.93
11:AK:124:LYS:NZ	21:AU:33:ARG:HH21	1.66	0.93
17:AQ:22:VAL:HG21	17:AQ:60:ILE:HD11	1.49	0.93
53:CA:1458:G:O2'	20:CT:22:SER:CB	2.16	0.93
22:DA:589:U:H2'	22:DA:590:A:H8	1.33	0.93
22:DA:2517:C:O2'	22:DA:2518:A:H3'	1.68	0.93
2:AB:108:GLN:C	2:AB:110:ILE:N	2.19	0.93
8:AH:6:ILE:HB	8:AH:76:ARG:NH1	1.82	0.93
21:AU:3:ILE:HA	21:AU:19:LYS:HZ2	1.34	0.93
22:BA:2431:U:H5'	22:BA:2431:U:C6	2.03	0.93
22:BA:2757:A:N1	28:BG:66:THR:HG21	1.83	0.93
26:BE:79:ARG:HG2	26:BE:80:SER:H	1.32	0.93
53:CA:274:A:HO2'	53:CA:275:G:H8	0.93	0.93
21:CU:24:LYS:HG3	21:CU:25:ALA:N	1.78	0.93
22:DA:118:A:OP2	22:DA:119:A:H3'	1.68	0.93
22:DA:2880:C:H1'	35:DN:93:GLY:H	1.33	0.93
22:BA:1020:A:H4'	22:BA:1021:A:O5'	1.67	0.93
22:DA:1267:U:HO2'	22:DA:1268:A:H8	0.96	0.93
22:DA:2216:G:O2'	22:DA:2217:G:H8	1.49	0.93
25:DD:114:LYS:HD2	25:DD:116:LYS:HZ2	1.28	0.93
36:DO:17:LYS:HE3	36:DO:17:LYS:O	1.67	0.93
5:AE:87:VAL:HG12	5:AE:92:ARG:HA	1.47	0.93
6:AF:6:ILE:CG1	6:AF:89:VAL:HG23	1.99	0.93
9:AI:40:ARG:CA	9:AI:44:ARG:HB3	1.98	0.93
44:BW:9:THR:CG2	44:BW:10:ARG:HD3	1.97	0.93
8:CH:93:LYS:HD3	8:CH:93:LYS:N	1.84	0.93
32:DK:87:LEU:HD12	32:DK:92:GLU:HA	1.48	0.93
1:AA:511:C:O2'	1:AA:512:U:H5''	1.69	0.93
22:BA:443:A:N7	26:BE:40:ARG:HD3	1.83	0.93
53:CA:251:G:H4'	53:CA:252:U:C5'	1.99	0.93
53:CA:1139:G:H4'	53:CA:1140:C:O5'	1.69	0.93
22:DA:2023:C:HO2'	22:DA:2024:G:H8	1.01	0.93
38:DQ:27:ARG:HA	38:DQ:33:VAL:HG12	1.50	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:497:G:O2'	1:AA:498:A:H5'	1.68	0.93
2:AB:48:MET:HA	2:AB:48:MET:HE3	1.50	0.93
14:AN:40:ARG:HH12	14:AN:44:VAL:HG11	1.32	0.93
28:BG:8:VAL:O	28:BG:9:VAL:HG12	1.68	0.93
4:CD:144:ILE:HD11	4:CD:154:VAL:HG21	1.51	0.93
56:CP:75:ILE:HA	56:CP:78:VAL:HG23	1.49	0.93
22:DA:333:G:HO2'	22:DA:334:C:H6	1.04	0.93
22:BA:335:C:H5''	42:BU:81:ARG:HD3	1.49	0.93
22:BA:859:G:N2	22:BA:916:G:H2'	1.83	0.93
41:BT:29:THR:HA	41:BT:86:THR:HA	1.51	0.93
54:CG:91:ARG:CG	54:CG:92:PRO:HD2	1.98	0.93
22:DA:249:C:H5''	22:DA:2394:C:O2'	1.69	0.93
53:CA:166:U:H2'	53:CA:167:A:H5'	1.51	0.93
53:CA:209:U:H5''	53:CA:210:C:OP2	1.69	0.93
22:DA:2199:A:H2'	22:DA:2200:C:H6	1.34	0.93
58:DF:91:ARG:HH21	58:DF:91:ARG:HB3	1.31	0.93
40:DS:47:VAL:HG12	40:DS:103:ILE:HG12	1.49	0.93
1:AA:706:A:O2'	11:AK:30:ILE:HD11	1.69	0.92
5:AE:133:ILE:H	5:AE:133:ILE:HD12	1.34	0.92
28:BG:120:ILE:HD13	28:BG:121:THR:H	1.30	0.92
30:BI:23:VAL:HB	30:BI:27:LEU:HB3	1.49	0.92
39:BR:4:VAL:HG23	39:BR:39:LEU:HG	1.49	0.92
53:CA:330:C:HO2'	53:CA:331:G:H8	0.94	0.92
22:DA:1345:C:HO2'	22:DA:1346:G:H8	0.96	0.92
26:DE:119:ILE:HD13	26:DE:143:LEU:HD21	1.51	0.92
22:BA:284:U:H2'	22:BA:285:G:H8	1.34	0.92
24:BC:131:MET:HA	24:BC:134:ILE:CD1	1.98	0.92
32:BK:71:ARG:HB2	32:BK:72:PRO:HD3	1.51	0.92
54:CG:22:LEU:HA	54:CG:25:PHE:CB	2.00	0.92
5:AE:110:MET:HA	5:AE:113:VAL:HG13	1.51	0.92
22:BA:728:G:HO2'	22:BA:730:A:H8	1.05	0.92
25:BD:9:VAL:HG22	25:BD:26:VAL:HB	1.48	0.92
43:BV:10:LYS:HD3	43:BV:10:LYS:N	1.80	0.92
20:CT:23:ARG:HB3	20:CT:60:GLN:NE2	1.83	0.92
22:DA:873:C:H4'	34:DM:64:TRP:HE1	1.29	0.92
32:DK:21:CYS:HA	32:DK:41:ILE:HD12	1.50	0.92
1:AA:1197:A:O2'	1:AA:1198:G:H5'	1.70	0.92
2:AB:9:LEU:HD23	2:AB:11:ALA:H	1.31	0.92
5:AE:14:LEU:HB2	5:AE:36:THR:HG22	1.51	0.92
6:AF:92:THR:O	6:AF:93:LYS:HG2	1.70	0.92
22:BA:1707:G:H2'	22:BA:1708:C:C6	2.05	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:519:C:O2'	53:CA:520:A:H5'	1.67	0.92
4:CD:66:VAL:HG22	4:CD:96:ARG:NH1	1.85	0.92
22:DA:164:C:O2'	22:DA:165:A:H5'	1.70	0.92
22:DA:1552:A:O2'	22:DA:1553:A:H5'	1.67	0.92
35:DN:90:ARG:NH2	35:DN:116:VAL:HG11	1.83	0.92
42:DU:33:VAL:O	42:DU:34:ILE:HG13	1.67	0.92
5:AE:113:VAL:HG21	5:AE:140:ILE:HD12	1.51	0.92
22:BA:1438:U:O2'	22:BA:1439:A:H5'	1.70	0.92
27:BF:134:GLN:H	27:BF:134:GLN:HE21	1.02	0.92
42:BU:52:ASN:C	42:BU:54:PRO:HD2	1.94	0.92
53:CA:1226:C:N4	55:CM:102:LYS:HA	1.83	0.92
22:DA:2267:A:H61	22:DA:2272:U:H3	0.93	0.92
41:DT:50:LEU:HD23	41:DT:51:PHE:H	1.32	0.92
42:DU:47:PRO:HB3	42:DU:54:PRO:CG	1.99	0.92
1:AA:975:A:H4'	1:AA:976:G:C5'	1.98	0.92
16:AP:28:ARG:HE	16:AP:29:ASN:HD21	1.01	0.92
22:BA:1085:A:H3'	22:BA:1086:A:C2	2.04	0.92
22:BA:1682:G:H2'	22:BA:1683:U:C6	2.04	0.92
25:BD:107:VAL:HG21	25:BD:177:VAL:HG13	1.51	0.92
31:BJ:4:PHE:O	31:BJ:44:TYR:CE1	2.22	0.92
34:BM:40:ARG:HB2	34:BM:93:VAL:HG21	1.50	0.92
2:CB:110:ILE:HD13	2:CB:151:LYS:HA	1.51	0.92
17:CQ:3:LYS:NZ	17:CQ:6:THR:HG21	1.85	0.92
57:DB:50:A:C2	57:DB:51:G:H1'	2.05	0.92
22:BA:2197:U:HO2'	22:BA:2198:A:H2'	1.32	0.92
43:BV:10:LYS:H	43:BV:10:LYS:CD	1.77	0.92
53:CA:694:A:H3'	53:CA:695:A:H5''	1.48	0.92
4:CD:109:THR:HG22	4:CD:111:ALA:H	1.34	0.92
22:DA:1534:U:H6	22:DA:1538:G:H1	1.17	0.92
58:DF:129:MET:HE2	58:DF:174:PHE:CZ	2.05	0.92
50:D2:31:LEU:HA	50:D2:34:ARG:HB2	1.50	0.92
22:BA:646:U:C3'	22:BA:647:G:H5''	2.00	0.92
22:BA:856:G:H1'	44:BW:23:LYS:HB3	1.49	0.92
22:BA:1063:G:OP1	30:BI:76:ALA:HB3	1.70	0.92
37:BP:50:ARG:HB3	37:BP:57:ALA:H	1.34	0.92
12:CL:109:ARG:HB2	12:CL:118:VAL:HG21	1.47	0.92
26:DE:59:PRO:HB2	26:DE:67:ARG:NH2	1.85	0.92
26:DE:166:LYS:HE2	26:DE:166:LYS:HA	1.52	0.92
31:DJ:29:ALA:HB3	31:DJ:108:MET:HE3	1.50	0.92
1:AA:439:U:C2'	1:AA:440:C:H5'	1.99	0.92
1:AA:1202:U:O2'	1:AA:1203:C:H5'	1.70	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1499:A:O2'	1:AA:1500:A:H5'	1.70	0.92
20:AT:82:ILE:O	20:AT:86:ALA:HB3	1.68	0.92
28:BG:84:LYS:HG3	28:BG:132:LEU:H	1.12	0.92
53:CA:566:G:H4'	53:CA:567:G:OP1	1.69	0.92
53:CA:936:C:O2'	53:CA:937:A:H8	1.52	0.92
22:DA:1655:A:H2'	22:DA:1656:C:C6	2.04	0.92
22:DA:1913:A:H4'	22:DA:1914:C:OP1	1.67	0.92
22:DA:2023:C:O2'	22:DA:2024:G:H8	1.52	0.92
22:DA:2612:C:H5''	22:DA:2613:U:OP1	1.70	0.92
24:DC:16:VAL:N	24:DC:203:VAL:HG12	1.84	0.92
22:BA:1157:G:O2'	47:BZ:31:ILE:HD11	1.70	0.92
22:BA:1695:G:C8	24:BC:7:PRO:HG2	2.05	0.92
37:BP:50:ARG:HD3	37:BP:56:SER:CB	1.98	0.92
40:BS:73:LYS:HE3	40:BS:74:ILE:N	1.85	0.92
22:DA:637:A:H4'	22:DA:638:G:O5'	1.65	0.92
42:DU:14:THR:HB	42:DU:68:ASN:HB3	1.49	0.92
49:D1:25:ASN:HB3	49:D1:28:THR:OG1	1.70	0.92
6:AF:40:GLU:HB2	6:AF:42:TRP:HE1	1.33	0.91
21:CU:39:LYS:N	21:CU:40:PRO:HD2	1.85	0.91
33:DL:79:LEU:HB2	33:DL:113:ALA:H	1.33	0.91
1:AA:275:G:O2'	1:AA:276:G:H5'	1.71	0.91
27:BF:114:ARG:HD2	27:BF:114:ARG:H	1.34	0.91
28:BG:86:LEU:HD12	28:BG:86:LEU:H	1.35	0.91
53:CA:32:A:H2'	53:CA:33:A:C8	2.05	0.91
22:DA:95:A:H1'	46:DY:40:SER:HB2	1.49	0.91
22:DA:1258:U:H2'	22:DA:1259:G:H8	1.33	0.91
22:DA:2056:G:H21	48:D0:1:ALA:H3	1.17	0.91
22:DA:2520:C:HO2'	22:DA:2521:C:H6	0.98	0.91
1:AA:1157:A:H4'	1:AA:1158:C:H5''	1.53	0.91
10:AJ:29:ALA:CB	10:AJ:36:VAL:HG21	1.99	0.91
12:AL:27:PRO:HB2	12:AL:28:GLN:OE1	1.67	0.91
3:CC:29:ALA:HB1	14:CN:64:ARG:HH12	1.35	0.91
4:CD:29:THR:HG22	4:CD:30:LYS:HD3	1.50	0.91
22:DA:2756:U:O2'	22:DA:2757:A:H5'	1.69	0.91
31:DJ:111:LYS:HB2	31:DJ:115:GLY:CA	2.00	0.91
1:AA:1050:G:O2'	1:AA:1051:C:H5'	1.70	0.91
17:AQ:79:GLU:C	17:AQ:80:LYS:HD3	1.96	0.91
39:BR:28:ALA:O	39:BR:63:VAL:HG21	1.70	0.91
3:CC:29:ALA:HB1	14:CN:64:ARG:NH1	1.86	0.91
22:DA:762:U:H4'	22:DA:763:G:O5'	1.69	0.91
22:DA:862:G:H2'	22:DA:863:A:C8	2.05	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:39:THR:CG2	41:DT:42:GLU:HB2	2.01	0.91
47:DZ:20:LYS:O	47:DZ:24:LEU:HD13	1.70	0.91
14:AN:22:LYS:HG3	14:AN:23:ARG:H	1.35	0.91
32:BK:113:MET:SD	32:BK:116:ILE:HD11	2.10	0.91
53:CA:481:G:H4'	53:CA:482:A:OP1	1.68	0.91
53:CA:1172:C:O2'	53:CA:1173:U:H5'	1.70	0.91
8:CH:28:SER:HA	8:CH:58:LEU:HD12	1.53	0.91
43:BV:80:HIS:ND1	43:BV:81:PRO:HD2	1.86	0.91
6:CF:61:LEU:HD13	6:CF:62:MET:H	1.35	0.91
54:CG:110:ARG:HG3	54:CG:111:GLY:H	1.35	0.91
29:DH:83:LYS:HE2	29:DH:149:GLU:HB3	1.49	0.91
22:BA:1073:A:C2'	22:BA:1074:G:C5'	2.48	0.91
22:BA:1455:G:H8	22:BA:1455:G:H5'	1.33	0.91
40:BS:18:ARG:HG2	40:BS:76:VAL:HG13	1.50	0.91
5:CE:24:VAL:HG23	5:CE:26:GLY:H	1.35	0.91
22:DA:1078:U:H4'	22:DA:1079:C:C5'	2.01	0.91
22:DA:2683:C:O2'	22:DA:2684:U:H5'	1.71	0.91
37:DP:50:ARG:HB3	37:DP:57:ALA:N	1.86	0.91
6:AF:36:ILE:HG22	6:AF:64:VAL:HG22	1.53	0.91
21:AU:3:ILE:HA	21:AU:19:LYS:NZ	1.84	0.91
24:BC:16:VAL:H	24:BC:203:VAL:CG1	1.83	0.91
28:BG:115:GLN:CD	28:BG:115:GLN:H	1.79	0.91
49:B1:33:LEU:N	49:B1:51:ALA:HB3	1.85	0.91
53:CA:1182:G:H4'	53:CA:1183:U:C5'	1.97	0.91
53:CA:1213:A:O2'	53:CA:1214:C:H5'	1.71	0.91
22:DA:617:G:HO2'	22:DA:618:G:H8	1.18	0.91
22:DA:1760:C:H2'	22:DA:1761:C:C6	2.06	0.91
22:DA:2093:G:N3	22:DA:2094:A:C8	2.39	0.91
22:DA:2850:A:O2'	22:DA:2851:A:H5'	1.70	0.91
57:DB:56:G:H4'	57:DB:57:A:O5'	1.70	0.91
57:DB:58:A:C2'	57:DB:59:A:H8	1.83	0.91
41:DT:43:ILE:HG21	41:DT:58:VAL:HG11	1.52	0.91
43:DV:77:VAL:HA	43:DV:89:ILE:HG22	1.53	0.91
22:BA:372:G:H5''	45:BX:60:LYS:HE3	1.51	0.91
38:BQ:8:ILE:C	38:BQ:8:ILE:HD12	1.96	0.91
4:CD:2:ARG:HH21	4:CD:114:ARG:CD	1.83	0.91
4:CD:25:ARG:HG2	4:CD:25:ARG:HH11	0.79	0.91
22:DA:510:C:H2'	22:DA:511:U:C6	2.05	0.91
22:DA:2688:G:H1'	22:DA:2721:A:N6	1.85	0.91
34:DM:41:LEU:HD23	34:DM:46:ILE:HG22	1.52	0.91
2:AB:110:ILE:CD1	2:AB:147:LEU:CD1	2.48	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:22:LYS:HG3	14:AN:23:ARG:N	1.85	0.91
22:BA:826:U:O2'	33:BL:53:GLY:HA3	1.68	0.91
22:BA:942:G:H2'	22:BA:943:A:H5'	1.53	0.91
32:BK:10:VAL:CB	32:BK:16:ALA:HB1	2.01	0.91
38:BQ:8:ILE:HD12	38:BQ:9:ALA:N	1.86	0.91
43:BV:44:HIS:HE1	43:BV:86:LEU:H	1.18	0.91
17:CQ:46:HIS:HB2	17:CQ:70:LYS:CE	2.01	0.91
22:DA:1754:A:OP1	37:DP:93:LYS:HE3	1.71	0.91
57:DB:24:G:H1'	57:DB:27:C:H42	1.32	0.91
1:AA:560:A:H5'	1:AA:566:G:N2	1.85	0.90
22:BA:1733:G:HO2'	22:BA:1734:G:H8	0.90	0.90
22:BA:2211:A:OP2	22:BA:2211:A:H4'	1.68	0.90
38:BQ:97:ILE:C	38:BQ:97:ILE:HD12	1.96	0.90
53:CA:642:A:N7	8:CH:106:SER:HA	1.86	0.90
2:CB:99:MET:HA	2:CB:106:VAL:HG21	1.51	0.90
21:CU:24:LYS:CG	21:CU:25:ALA:H	1.84	0.90
22:DA:915:C:H2'	22:DA:916:G:H8	1.34	0.90
31:DJ:35:ARG:HG2	31:DJ:40:HIS:CD2	2.05	0.90
34:DM:42:THR:HB	34:DM:45:GLN:HG3	1.53	0.90
35:DN:38:LEU:HB3	35:DN:39:PRO:HD3	1.53	0.90
35:DN:71:ARG:HB2	35:DN:71:ARG:NH2	1.87	0.90
3:AC:166:TRP:H	3:AC:166:TRP:HE3	1.10	0.90
44:BW:76:ARG:HH21	44:BW:76:ARG:HG3	1.33	0.90
22:DA:664:G:H4'	22:DA:941:A:OP1	1.70	0.90
22:DA:1022:G:H22	22:DA:1142:A:H2	1.14	0.90
22:DA:1327:A:H2'	22:DA:1328:A:H8	1.34	0.90
22:DA:2461:A:H1'	22:DA:2492:U:H3	1.34	0.90
22:DA:2631:G:C2'	22:DA:2632:A:H5''	2.01	0.90
30:DI:57:VAL:HG12	30:DI:58:ILE:H	1.33	0.90
36:DO:115:LEU:H	36:DO:115:LEU:HD13	1.34	0.90
1:AA:545:C:H2'	1:AA:546:A:H5'	1.52	0.90
2:AB:13:VAL:HG22	2:AB:207:ARG:HH22	1.34	0.90
11:AK:100:ASN:HB2	11:AK:106:ILE:CG2	2.02	0.90
22:BA:2703:C:H2'	22:BA:2704:C:H6	1.37	0.90
29:BH:5:LEU:HD13	29:BH:13:GLY:HA2	1.50	0.90
53:CA:484:G:H4'	53:CA:485:U:O5'	1.71	0.90
53:CA:1086:U:O2'	53:CA:1087:G:H5'	1.71	0.90
10:CJ:15:HIS:HE1	10:CJ:68:ARG:HD3	1.37	0.90
22:DA:1116:G:N3	22:DA:1117:C:C5	2.39	0.90
22:DA:1673:G:H2'	22:DA:1674:G:H5'	1.53	0.90
22:DA:2389:G:H5''	22:DA:2390:U:H5'	1.53	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2415:G:H4'	33:DL:66:PHE:HB2	1.52	0.90
1:AA:251:G:H4'	1:AA:252:U:O5'	1.68	0.90
5:AE:148:SER:O	5:AE:152:VAL:HG13	1.71	0.90
22:BA:1286:A:H4'	22:BA:1287:A:OP1	1.70	0.90
12:CL:79:ILE:HD12	12:CL:96:THR:CG2	2.00	0.90
14:CN:76:PHE:HE2	14:CN:92:ILE:HG21	1.37	0.90
56:CP:1:MET:HA	56:CP:1:MET:HE3	1.53	0.90
22:DA:989:G:H4'	22:DA:990:A:OP1	1.69	0.90
28:DG:126:THR:HG22	28:DG:127:GLN:H	1.35	0.90
33:DL:17:LYS:HZ1	33:DL:19:LEU:HD22	1.36	0.90
11:AK:124:LYS:CE	21:AU:33:ARG:HH21	1.82	0.90
17:AQ:80:LYS:HZ3	17:AQ:80:LYS:HB2	1.35	0.90
22:BA:646:U:H3'	22:BA:647:G:C5'	2.01	0.90
22:BA:2339:C:H2'	22:BA:2340:A:H8	1.37	0.90
28:BG:86:LEU:HB3	28:BG:162:ARG:O	1.71	0.90
53:CA:1102:A:O2'	53:CA:1103:C:H5'	1.70	0.90
22:DA:320:A:H2'	26:DE:131:THR:OG1	1.71	0.90
31:DJ:74:TYR:HE2	31:DJ:103:ILE:HD11	1.35	0.90
1:AA:1343:G:H1'	9:AI:122:ARG:NH1	1.86	0.90
28:BG:85:LYS:HG2	28:BG:131:VAL:HG12	1.50	0.90
4:CD:29:THR:HG22	4:CD:30:LYS:CD	2.00	0.90
9:CI:27:ILE:HD13	9:CI:62:LEU:HB3	1.54	0.90
12:CL:3:VAL:HG23	12:CL:4:ASN:H	1.35	0.90
14:CN:33:VAL:HG22	14:CN:40:ARG:HH21	1.36	0.90
22:DA:1611:C:HO2'	22:DA:1612:C:H6	0.90	0.90
6:AF:97:THR:O	6:AF:98:GLU:HG2	1.72	0.90
43:BV:2:PHE:HD1	43:BV:50:MET:HE2	1.36	0.90
53:CA:988:G:C2'	53:CA:989:U:H5'	1.99	0.90
22:DA:1870:C:H5''	22:DA:1871:A:H2	1.37	0.90
29:DH:1:MET:HB3	29:DH:21:VAL:O	1.72	0.90
37:DP:20:ARG:HG2	37:DP:112:ARG:HH12	1.34	0.90
5:AE:14:LEU:HD13	5:AE:14:LEU:O	1.70	0.90
7:AG:143:MET:HA	7:AG:143:MET:HE3	1.52	0.90
22:BA:1084:A:H2'	22:BA:1085:A:C8	2.05	0.90
31:BJ:111:LYS:CD	31:BJ:112:GLY:N	2.33	0.90
6:CF:43:GLY:HA2	6:CF:58:HIS:CE1	2.06	0.90
22:DA:142:A:H2'	22:DA:143:C:C6	2.07	0.90
22:DA:447:A:H5'	22:DA:449:A:C5	2.07	0.90
22:DA:1807:G:H2'	22:DA:1808:A:H5'	1.54	0.90
22:DA:1929:G:H4'	22:DA:1930:G:OP1	1.71	0.90
24:DC:224:MET:SD	24:DC:229:HIS:HB2	2.12	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:129:MET:HE2	58:DF:174:PHE:HZ	1.34	0.90
31:DJ:45:THR:HG21	31:DJ:50:THR:HG23	1.52	0.90
17:AQ:7:LEU:HD23	17:AQ:24:ILE:HD13	1.54	0.90
20:AT:43:LYS:CB	20:AT:86:ALA:HB1	2.00	0.90
22:BA:479:A:O2'	22:BA:481:G:H5'	1.72	0.90
28:BG:84:LYS:CG	28:BG:132:LEU:H	1.84	0.90
44:BW:23:LYS:HD2	44:BW:24:ARG:N	1.86	0.90
22:DA:1417:C:O2'	22:DA:1418:G:H5'	1.71	0.90
25:DD:89:GLU:HG2	25:DD:94:GLN:HE22	1.37	0.90
30:DI:45:THR:HG23	30:DI:54:ILE:HD13	1.54	0.90
33:DL:92:LEU:CD2	33:DL:124:GLY:HA3	2.00	0.90
38:DQ:87:VAL:HG21	39:DR:52:PRO:CD	2.02	0.90
1:AA:633:G:O2'	1:AA:634:C:H5'	1.72	0.90
14:AN:19:TYR:O	14:AN:22:LYS:HB3	1.72	0.90
22:BA:528:A:H5''	22:BA:528:A:H8	1.36	0.90
53:CA:348:G:O2'	53:CA:349:A:H5'	1.72	0.90
53:CA:781:A:H2'	53:CA:782:A:H5'	1.54	0.90
22:DA:822:G:O6	22:DA:943:A:H2	1.55	0.90
22:DA:2348:U:O2'	22:DA:2349:G:H8	1.52	0.90
25:DD:141:ARG:HB3	25:DD:141:ARG:NH1	1.87	0.90
30:DI:91:LYS:HB3	30:DI:94:LYS:HB2	1.53	0.90
1:AA:1123:U:H4'	10:AJ:39:PRO:HD2	1.53	0.89
1:AA:1314:C:OP2	19:AS:5:LYS:HD2	1.72	0.89
25:BD:104:VAL:O	25:BD:177:VAL:HG21	1.72	0.89
38:BQ:97:ILE:HD11	38:BQ:105:PHE:CA	2.02	0.89
41:BT:32:LEU:H	41:BT:83:ALA:CB	1.84	0.89
53:CA:1086:U:H5'	53:CA:1086:U:C6	2.08	0.89
26:DE:119:ILE:CD1	26:DE:143:LEU:HD21	2.02	0.89
26:DE:149:ILE:O	26:DE:188:MET:HA	1.72	0.89
58:DF:91:ARG:HA	58:DF:95:MET:SD	2.13	0.89
35:DN:73:ASN:HA	35:DN:76:VAL:HG22	1.52	0.89
42:DU:92:VAL:HB	42:DU:101:THR:CG2	2.02	0.89
44:DW:40:ARG:HG2	44:DW:40:ARG:NH1	1.75	0.89
1:AA:60:A:H4'	1:AA:61:G:O5'	1.70	0.89
53:CA:279:A:H5''	53:CA:280:C:H3'	1.54	0.89
53:CA:519:C:H2'	53:CA:520:A:H8	1.34	0.89
53:CA:960:U:H4'	53:CA:961:U:C5'	2.02	0.89
17:CQ:30:HIS:CE1	17:CQ:32:ILE:HG13	2.05	0.89
22:DA:1996:C:H4'	22:DA:1997:C:OP1	1.70	0.89
25:DD:107:VAL:HG12	25:DD:109:VAL:HG23	1.52	0.89
58:DF:103:ILE:HA	58:DF:107:VAL:HG21	1.52	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:99:ARG:HA	31:DJ:102:GLU:HB3	1.52	0.89
34:DM:34:LYS:HB2	34:DM:131:VAL:CG2	2.03	0.89
9:AI:44:ARG:HG3	9:AI:45:MET:HE1	1.53	0.89
16:AP:28:ARG:NE	16:AP:29:ASN:HD21	1.69	0.89
25:BD:159:LYS:HZ2	25:BD:160:LYS:N	1.70	0.89
29:BH:68:ARG:NH2	29:BH:72:ILE:HG21	1.87	0.89
22:DA:811:U:H5''	22:DA:812:C:OP2	1.71	0.89
22:DA:973:A:H1'	22:DA:1188:U:C6	2.06	0.89
22:DA:995:C:O2	31:DJ:3:THR:HG23	1.71	0.89
29:DH:41:LYS:HA	29:DH:44:ILE:HG12	1.55	0.89
5:AE:80:LEU:CD2	5:AE:122:VAL:HG11	2.01	0.89
9:AI:32:ARG:HG2	9:AI:36:GLN:CB	2.01	0.89
11:AK:28:ASN:OD1	11:AK:46:ALA:HB3	1.72	0.89
22:BA:1885:A:H2'	22:BA:1886:U:C6	2.08	0.89
26:BE:112:LEU:HD13	26:BE:186:VAL:HG11	1.53	0.89
52:B4:1:MET:HE2	52:B4:34:LYS:HG2	1.52	0.89
22:DA:91:A:O2'	22:DA:92:U:H5''	1.72	0.89
29:DH:84:ALA:HB3	29:DH:148:ALA:CB	2.03	0.89
1:AA:158:G:H2'	1:AA:159:G:C5'	2.02	0.89
5:AE:80:LEU:HD12	5:AE:146:MET:CE	2.03	0.89
5:AE:110:MET:O	5:AE:114:LEU:HB2	1.73	0.89
22:BA:1654:A:H1'	25:BD:118:PHE:CD1	2.07	0.89
22:BA:1993:U:H4'	25:BD:133:THR:HG21	1.55	0.89
37:BP:50:ARG:CG	37:BP:57:ALA:H	1.84	0.89
37:BP:61:ARG:HG2	37:BP:70:GLU:HG2	1.54	0.89
44:BW:24:ARG:HD3	44:BW:65:LYS:HE2	1.53	0.89
53:CA:239:U:H5'	53:CA:239:U:H6	1.33	0.89
20:CT:26:MET:HE1	20:CT:56:ILE:HD13	1.55	0.89
22:DA:593:U:H2'	22:DA:594:U:C6	2.08	0.89
22:DA:1915:U:H2'	22:DA:1916:A:H8	1.07	0.89
22:DA:2093:G:N2	22:DA:2094:A:C4	2.40	0.89
1:AA:792:A:H4'	1:AA:793:U:O5'	1.72	0.89
22:BA:84:A:H62	22:BA:101:A:H2	0.97	0.89
22:BA:506:G:H4'	22:BA:507:A:H5'	1.55	0.89
22:BA:2654:A:H4'	22:BA:2655:G:OP1	1.70	0.89
23:BB:33:G:O2'	23:BB:34:A:H5'	1.73	0.89
2:CB:127:LYS:HE2	2:CB:136:ARG:HH21	1.34	0.89
3:CC:76:ILE:HD11	3:CC:102:ILE:HD11	1.54	0.89
22:DA:876:C:H3'	22:DA:877:A:C8	2.08	0.89
42:DU:95:PHE:HD1	42:DU:95:PHE:H	1.18	0.89
6:AF:3:HIS:N	6:AF:92:THR:HG23	1.87	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:37:VAL:HG12	44:BW:38:ARG:N	1.84	0.89
53:CA:135:C:O2	56:CP:1:MET:HB2	1.72	0.89
4:CD:89:LEU:HD23	4:CD:199:ILE:HD11	1.53	0.89
22:DA:96:C:H4'	46:DY:41:HIS:CD2	2.07	0.89
22:DA:1965:C:H5'	22:DA:1966:A:H5''	1.54	0.89
40:DS:8:ARG:O	40:DS:9:HIS:HB2	1.70	0.89
1:AA:877:G:H21	8:AH:1:SER:HB2	1.38	0.89
24:BC:33:LEU:CD2	24:BC:62:ARG:HD3	2.02	0.89
48:B0:39:ARG:HB2	48:B0:39:ARG:HH11	1.36	0.89
51:B3:26:ALA:O	51:B3:27:ASN:HB2	1.72	0.89
54:CG:100:MET:H	54:CG:100:MET:HE2	1.37	0.89
10:CJ:15:HIS:CE1	10:CJ:68:ARG:HD3	2.07	0.89
22:DA:1116:G:C4	22:DA:1117:C:C5	2.60	0.89
41:DT:14:PRO:O	41:DT:15:HIS:HB2	1.73	0.89
3:AC:128:MET:HB3	3:AC:131:ARG:HG3	1.53	0.89
19:AS:4:LEU:HD22	19:AS:8:PRO:HA	1.55	0.89
4:CD:143:SER:HB3	4:CD:178:GLU:HG3	1.55	0.89
22:DA:279:A:H61	22:DA:361:G:H1'	1.37	0.89
22:BA:84:A:H4'	22:BA:85:G:O5'	1.70	0.89
53:CA:491:G:O2'	53:CA:492:C:H5'	1.70	0.89
22:DA:739:A:H4'	22:DA:740:C:OP1	1.69	0.89
22:DA:1181:U:H2'	22:DA:1182:G:H8	1.37	0.89
22:DA:1327:A:H2'	22:DA:1328:A:C8	2.07	0.89
1:AA:545:C:H5'	4:AD:68:GLU:CG	2.02	0.88
1:AA:1299:A:H2'	1:AA:1299:A:N3	1.88	0.88
22:BA:1023:U:H5'	22:BA:1023:U:H6	1.35	0.88
28:BG:140:ILE:HD12	28:BG:141:GLY:N	1.88	0.88
35:BN:65:LEU:HD11	35:BN:69:ARG:NH2	1.88	0.88
39:BR:39:LEU:HA	39:BR:49:ILE:HG21	1.54	0.88
53:CA:174:A:O2'	53:CA:175:C:H5'	1.71	0.88
10:CJ:35:GLN:HG2	10:CJ:76:ILE:HG23	1.54	0.88
41:DT:87:LEU:HD23	41:DT:88:LYS:N	1.87	0.88
1:AA:531:U:H4'	1:AA:532:A:O5'	1.73	0.88
4:AD:25:ARG:NH1	4:AD:30:LYS:HE3	1.88	0.88
17:AQ:12:VAL:HG13	17:AQ:16:MET:HE1	1.55	0.88
22:BA:765:C:O2'	22:BA:766:U:H5'	1.73	0.88
23:BB:28:C:C2'	23:BB:29:A:H5'	2.03	0.88
37:BP:59:THR:HG23	37:BP:72:VAL:HG13	1.55	0.88
53:CA:989:U:C2'	53:CA:990:C:C5'	2.51	0.88
6:CF:92:THR:O	6:CF:93:LYS:HG2	1.73	0.88
10:CJ:12:ALA:HB3	10:CJ:18:ILE:HB	1.53	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:279:A:N6	22:DA:361:G:H1'	1.88	0.88
1:AA:423:G:H2'	1:AA:423:G:N3	1.86	0.88
5:AE:45:VAL:HG21	5:AE:117:ALA:HA	1.52	0.88
38:BQ:63:ARG:CZ	38:BQ:96:ASP:HA	2.02	0.88
38:BQ:91:ARG:HD3	39:BR:11:GLN:CG	2.03	0.88
39:BR:25:LEU:H	39:BR:94:THR:CG2	1.85	0.88
3:CC:113:LYS:HG3	3:CC:184:ASN:ND2	1.88	0.88
22:DA:1338:G:H4'	41:DT:18:GLU:OE2	1.73	0.88
58:DF:48:LEU:HG	58:DF:49:LEU:HD22	1.52	0.88
32:DK:35:VAL:HG23	32:DK:36:GLY:H	1.38	0.88
37:DP:28:LYS:HB2	37:DP:28:LYS:HZ2	1.37	0.88
38:DQ:71:ASN:ND2	38:DQ:106:THR:HA	1.89	0.88
42:DU:45:GLN:HA	42:DU:45:GLN:HE21	1.38	0.88
44:DW:28:GLU:H	44:DW:31:LEU:HD21	1.34	0.88
46:DY:20:ASN:HD22	46:DY:50:VAL:HG22	1.38	0.88
47:DZ:4:ILE:HD12	47:DZ:58:GLU:HA	1.53	0.88
22:BA:915:C:H6	22:BA:915:C:H5''	1.36	0.88
22:BA:1779:U:H5	22:BA:1784:A:N7	1.70	0.88
53:CA:983:A:O2'	53:CA:984:C:H5'	1.73	0.88
22:DA:310:A:O2'	22:DA:311:A:H8	1.55	0.88
22:DA:2800:A:C4	22:DA:2801:G:H1'	2.09	0.88
58:DF:64:PRO:HA	58:DF:88:VAL:HG22	1.55	0.88
5:AE:155:LYS:HA	5:AE:158:LYS:NZ	1.88	0.88
22:BA:2328:A:H2'	22:BA:2329:U:C6	2.08	0.88
32:BK:18:ARG:HG3	32:BK:18:ARG:NH1	1.83	0.88
40:BS:59:GLU:HA	40:BS:64:ALA:CB	2.03	0.88
46:BY:24:GLU:O	46:BY:28:LEU:HB2	1.73	0.88
53:CA:940:C:H5'	54:CG:101:ARG:NH2	1.89	0.88
53:CA:960:U:H5'	53:CA:961:U:H5''	1.54	0.88
53:CA:984:C:O2'	53:CA:985:C:C6	2.26	0.88
10:CJ:40:ILE:HG22	10:CJ:42:LEU:CD1	2.02	0.88
22:DA:783:A:H2	22:DA:1778:U:H4'	1.36	0.88
22:DA:1345:C:H3'	22:DA:1345:C:OP2	1.72	0.88
2:AB:71:THR:HG22	2:AB:72:LYS:H	1.37	0.88
25:BD:12:THR:CG2	25:BD:13:ARG:H	1.86	0.88
47:BZ:6:ILE:O	47:BZ:34:THR:HA	1.74	0.88
53:CA:91:U:HO2'	53:CA:92:U:H6	1.09	0.88
53:CA:170:U:O2'	53:CA:171:A:H5'	1.74	0.88
53:CA:1159:U:H5	53:CA:1182:G:HO2'	0.93	0.88
22:DA:806:C:H2'	22:DA:807:U:H6	1.36	0.88
25:DD:184:ARG:HH22	37:DP:6:GLN:HE21	1.19	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:68:ARG:HD2	39:DR:92:TRP:CH2	2.08	0.88
51:D3:32:LEU:HA	51:D3:35:LYS:HG3	1.54	0.88
1:AA:32:A:H2'	1:AA:33:A:C8	2.07	0.88
1:AA:1256:A:H1'	1:AA:1258:G:C5	2.09	0.88
13:AM:113:LYS:H	13:AM:114:PRO:CD	1.87	0.88
41:BT:39:THR:CG2	41:BT:41:ALA:HB3	2.03	0.88
43:BV:80:HIS:HD2	43:BV:83:LYS:N	1.70	0.88
21:AU:39:LYS:H	21:AU:40:PRO:HD2	1.39	0.88
28:BG:126:THR:HG22	28:BG:127:GLN:H	1.36	0.88
37:BP:91:VAL:O	37:BP:92:ARG:HG2	1.73	0.88
53:CA:1278:G:H4'	53:CA:1279:G:O5'	1.70	0.88
22:DA:1401:G:H2'	22:DA:1402:U:H6	1.33	0.88
57:DB:65:U:H3'	57:DB:108:A:N6	1.89	0.88
2:AB:148:GLY:O	2:AB:151:LYS:HG2	1.72	0.88
10:AJ:53:ILE:HG22	10:AJ:61:ALA:HB1	1.56	0.88
32:BK:76:VAL:HB	37:BP:72:VAL:CG2	2.04	0.88
33:BL:27:LEU:H	33:BL:27:LEU:CD1	1.87	0.88
53:CA:764:C:C2'	53:CA:765:G:H5'	2.03	0.88
22:DA:320:A:H4'	22:DA:322:A:N7	1.89	0.88
22:DA:1387:A:N6	22:DA:1401:G:C6	2.41	0.88
4:AD:167:PRO:HB2	4:AD:170:LEU:HD11	1.56	0.88
22:BA:475:C:H5'	22:BA:475:C:H6	1.39	0.88
22:BA:1585:C:C2'	22:BA:1586:A:H5'	2.04	0.88
24:BC:180:MET:HG3	24:BC:268:ARG:NH1	1.87	0.88
44:BW:17:ALA:HA	44:BW:35:ILE:HG23	1.54	0.88
56:CP:67:ILE:HG12	56:CP:72:ALA:HB2	1.54	0.88
19:CS:40:PHE:CB	19:CS:41:PRO:HD2	2.02	0.88
22:DA:1141:U:H4'	22:DA:1142:A:O5'	1.72	0.88
22:DA:1324:G:H1'	22:DA:1616:A:N6	1.89	0.88
1:AA:620:C:C2	4:AD:131:ILE:HG21	2.09	0.87
11:AK:108:ASN:CB	21:AU:6:ARG:HG2	2.02	0.87
21:AU:13:VAL:HG13	21:AU:15:LEU:HG	1.55	0.87
25:BD:45:TYR:HD1	25:BD:45:TYR:H	1.21	0.87
39:BR:16:GLU:HA	39:BR:98:ILE:HG22	1.55	0.87
53:CA:1493:A:H3'	22:DA:1913:A:H62	1.39	0.87
22:DA:1716:U:O2'	22:DA:1717:A:H8	1.58	0.87
22:DA:1830:C:H5'	24:DC:14:HIS:CE1	2.08	0.87
22:DA:2136:G:H2'	22:DA:2137:U:C6	2.08	0.87
28:DG:106:LEU:HB2	28:DG:108:PHE:HE1	1.38	0.87
37:DP:86:LYS:HA	37:DP:86:LYS:NZ	1.88	0.87
38:DQ:4:LYS:HE3	38:DQ:7:VAL:HG13	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:4:LYS:HZ2	38:DQ:6:GLY:HA3	1.38	0.87
22:BA:1347:A:O2'	22:BA:1348:C:H5'	1.74	0.87
22:BA:2508:G:H2'	22:BA:2509:G:O5'	1.74	0.87
32:BK:4:GLU:OE2	32:BK:23:LYS:HE2	1.73	0.87
44:BW:19:ARG:NH1	44:BW:22:VAL:HG11	1.89	0.87
22:DA:1440:U:O2'	22:DA:1441:G:H5'	1.74	0.87
22:DA:2143:C:H5'	22:DA:2144:G:OP2	1.74	0.87
38:DQ:87:VAL:CG2	39:DR:52:PRO:HD3	2.01	0.87
44:DW:18:LYS:HD3	44:DW:19:ARG:H	1.35	0.87
4:AD:117:VAL:N	4:AD:122:ILE:HD11	1.90	0.87
11:AK:88:PRO:HD3	21:AU:28:LEU:HD13	1.56	0.87
22:BA:1416:G:HO2'	22:BA:1417:C:H6	0.95	0.87
53:CA:68:G:N2	53:CA:152:A:H1'	1.89	0.87
25:DD:107:VAL:HG13	25:DD:203:VAL:HG23	1.57	0.87
38:DQ:78:PHE:CE1	38:DQ:82:LEU:HD11	2.10	0.87
44:DW:37:VAL:CG1	44:DW:55:ASP:HB2	2.03	0.87
1:AA:390:U:H2'	1:AA:391:G:C8	2.09	0.87
8:AH:29:SER:HB3	8:AH:32:LYS:HG3	1.53	0.87
24:BC:140:VAL:CG1	24:BC:189:ALA:HB1	2.04	0.87
29:BH:32:PRO:HB3	45:BX:38:TRP:HB3	1.57	0.87
31:BJ:111:LYS:HE2	31:BJ:115:GLY:H	1.40	0.87
10:CJ:84:VAL:HG23	10:CJ:85:ASP:N	1.90	0.87
22:DA:230:G:HO2'	22:DA:231:A:H8	0.95	0.87
11:AK:22:ILE:HD13	11:AK:95:THR:HG21	1.56	0.87
22:BA:1510:G:H2'	22:BA:1511:G:H8	1.38	0.87
6:CF:3:HIS:ND1	6:CF:92:THR:HG23	1.88	0.87
22:DA:1078:U:H4'	22:DA:1079:C:H5''	1.56	0.87
22:DA:1280:G:H2'	22:DA:1281:G:H5'	1.56	0.87
22:DA:1453:A:H4'	22:DA:1454:C:OP2	1.73	0.87
42:DU:35:VAL:HG12	42:DU:36:GLU:H	1.37	0.87
45:DX:31:ASN:H	45:DX:31:ASN:ND2	1.72	0.87
9:AI:56:MET:HE2	9:AI:57:VAL:H	1.38	0.87
14:AN:44:VAL:HG23	14:AN:45:LEU:H	1.39	0.87
54:CG:14:ASP:HB3	54:CG:18:GLY:H	1.40	0.87
9:CI:51:LEU:CG	9:CI:86:LEU:HD22	2.03	0.87
22:DA:1069:A:N6	22:DA:1073:A:H5''	1.89	0.87
22:DA:1313:U:O2'	22:DA:1314:C:H5'	1.75	0.87
25:DD:141:ARG:HB3	25:DD:141:ARG:HH11	1.38	0.87
26:DE:60:TRP:CZ2	26:DE:71:GLY:HA2	2.10	0.87
36:DO:18:LEU:HD13	36:DO:25:ARG:HG2	1.55	0.87
1:AA:274:A:O2'	1:AA:275:G:C8	2.27	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1239:A:H4'	1:AA:1240:U:C5'	2.05	0.87
22:BA:1062:G:OP1	22:BA:1070:A:H4'	1.75	0.87
25:BD:151:THR:HG22	25:BD:152:PRO:N	1.85	0.87
38:BQ:63:ARG:HH12	38:BQ:96:ASP:CA	1.87	0.87
43:BV:80:HIS:CD2	43:BV:83:LYS:HB2	2.09	0.87
4:CD:34:GLU:O	4:CD:37:PRO:HD3	1.74	0.87
22:DA:45:G:H5'	22:DA:46:G:H5'	1.56	0.87
22:DA:1967:C:H6	22:DA:1967:C:H5''	1.40	0.87
22:DA:2800:A:O2'	22:DA:2801:G:C4'	2.19	0.87
24:DC:128:THR:CG2	24:DC:188:ARG:HB3	2.05	0.87
28:DG:93:TYR:H	28:DG:93:TYR:HD2	1.20	0.87
34:DM:61:GLY:HA2	34:DM:107:GLY:HA3	1.53	0.87
1:AA:16:A:O2'	1:AA:17:U:H5'	1.75	0.87
1:AA:49:U:O4	1:AA:365:U:H5	1.57	0.87
22:BA:1590:A:H2'	22:BA:1591:A:H8	1.36	0.87
22:BA:1873:G:O2'	22:BA:1874:C:H5'	1.75	0.87
22:BA:2602:A:H4'	22:BA:2603:G:OP2	1.75	0.87
33:BL:95:LEU:HD22	33:BL:100:ILE:HG12	1.54	0.87
38:BQ:97:ILE:CD1	38:BQ:105:PHE:HB2	2.05	0.87
22:DA:921:C:C2'	22:DA:922:C:H5'	2.03	0.87
22:DA:2514:U:H2'	22:DA:2515:C:H6	1.40	0.87
1:AA:198:G:O2'	1:AA:199:A:H8	1.58	0.87
1:AA:1411:C:H2'	1:AA:1412:C:H5'	1.55	0.87
22:BA:545:U:H2'	22:BA:546:U:H4'	1.54	0.87
22:BA:2051:A:H4'	22:BA:2052:A:OP1	1.72	0.87
53:CA:239:U:H5'	53:CA:239:U:C6	2.10	0.87
10:CJ:52:LEU:HD23	10:CJ:62:ARG:HG2	1.56	0.87
55:CM:78:ARG:HH21	55:CM:79:LEU:HD23	1.37	0.87
22:DA:526:A:N6	22:DA:2626:C:H4'	1.90	0.87
22:DA:1447:C:H2'	22:DA:1448:G:C8	2.10	0.87
22:DA:1469:A:H2'	22:DA:1470:A:C8	2.10	0.87
1:AA:202:G:H21	1:AA:466:A:H61	1.18	0.86
29:BH:31:VAL:CB	29:BH:32:PRO:HD2	2.05	0.86
35:BN:71:ARG:HH21	35:BN:71:ARG:CG	1.88	0.86
37:BP:105:LYS:HA	37:BP:108:ARG:HH21	1.40	0.86
48:B0:9:ARG:HH21	48:B0:9:ARG:HG3	1.38	0.86
53:CA:994:A:N6	53:CA:1216:A:H5'	1.90	0.86
5:CE:104:ILE:H	5:CE:122:VAL:H	1.17	0.86
22:DA:674:G:O2'	26:DE:69:ARG:HG2	1.74	0.86
22:DA:1919:A:O2'	22:DA:1920:C:H5'	1.75	0.86
29:DH:72:ILE:HD11	29:DH:141:LYS:H	1.40	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:47:ARG:HH21	33:DL:47:ARG:HG2	1.40	0.86
51:D3:15:LYS:NZ	51:D3:19:GLY:HA2	1.90	0.86
22:BA:1150:C:H2'	22:BA:1151:A:O5'	1.75	0.86
53:CA:91:U:O2'	53:CA:92:U:H5''	1.74	0.86
53:CA:238:A:H2'	53:CA:239:U:C5'	2.04	0.86
3:CC:181:ILE:HG12	3:CC:202:PHE:HB2	1.57	0.86
57:DB:45:A:H2'	57:DB:46:A:H8	1.38	0.86
33:DL:92:LEU:HD22	33:DL:124:GLY:HA3	1.56	0.86
35:DN:35:LYS:HG2	35:DN:112:TYR:CE1	2.09	0.86
36:DO:23:ALA:O	36:DO:42:PRO:HG3	1.75	0.86
38:DQ:87:VAL:HG11	39:DR:52:PRO:HG3	1.55	0.86
1:AA:563:A:H2'	1:AA:563:A:N3	1.89	0.86
1:AA:1279:G:H2'	1:AA:1279:G:N3	1.88	0.86
54:CG:71:THR:HG23	54:CG:72:VAL:HG23	1.54	0.86
21:CU:15:LEU:O	21:CU:15:LEU:HD12	1.75	0.86
22:DA:1388:G:O2'	22:DA:1389:G:H5'	1.75	0.86
31:BJ:73:VAL:HG23	31:BJ:74:TYR:N	1.91	0.86
38:BQ:63:ARG:HH12	38:BQ:96:ASP:HA	1.28	0.86
44:BW:23:LYS:HD2	44:BW:24:ARG:H	1.36	0.86
22:DA:1870:C:H5''	22:DA:1871:A:C2	2.10	0.86
31:DJ:25:LEU:HD12	31:DJ:64:VAL:HA	1.57	0.86
36:DO:53:THR:HB	36:DO:65:THR:HG22	1.58	0.86
43:DV:61:LEU:HD23	43:DV:61:LEU:H	1.40	0.86
1:AA:109:A:H2'	1:AA:326:G:H21	1.40	0.86
1:AA:571:U:H5''	1:AA:572:A:OP2	1.76	0.86
4:AD:145:ARG:HH11	4:AD:147:LYS:HE3	1.38	0.86
10:AJ:51:VAL:HB	14:AN:80:ARG:HB2	1.55	0.86
22:BA:2492:U:O2'	22:BA:2493:U:H5'	1.74	0.86
31:BJ:77:HIS:HD2	31:BJ:79:GLY:H	1.23	0.86
3:CC:110:LEU:HD21	3:CC:203:LYS:HD2	1.54	0.86
4:CD:176:LYS:HG3	4:CD:178:GLU:HB2	1.57	0.86
22:DA:28:A:O2'	22:DA:29:U:H5'	1.74	0.86
22:DA:2776:A:H4'	22:DA:2777:G:O5'	1.76	0.86
22:DA:2847:U:H2'	22:DA:2848:G:H5'	1.58	0.86
28:DG:120:ILE:HG13	28:DG:140:ILE:HG22	1.55	0.86
33:DL:124:GLY:H	33:DL:143:GLU:HG3	1.38	0.86
1:AA:1240:U:H3'	1:AA:1241:G:H5'	1.55	0.86
22:BA:65:U:H2'	22:BA:66:C:H6	1.40	0.86
22:BA:2136:G:H2'	22:BA:2137:U:H5	1.39	0.86
24:BC:77:VAL:O	24:BC:77:VAL:HG23	1.75	0.86
44:BW:23:LYS:O	44:BW:66:VAL:HB	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:37:VAL:CG1	44:BW:38:ARG:H	1.88	0.86
3:CC:140:ALA:O	3:CC:145:ALA:HB3	1.75	0.86
3:CC:152:VAL:HG23	3:CC:156:LEU:HD21	1.55	0.86
14:CN:40:ARG:NH1	19:CS:6:LYS:HB2	1.90	0.86
22:DA:246:C:H2'	22:DA:247:G:H5'	1.55	0.86
22:DA:1605:C:H4'	22:DA:1610:A:C6	2.10	0.86
57:DB:42:C:H41	58:DF:87:LYS:NZ	1.72	0.86
58:DF:39:VAL:HG22	58:DF:49:LEU:HG	1.57	0.86
32:DK:39:ILE:HD11	32:DK:62:VAL:HG23	1.56	0.86
38:DQ:60:TRP:O	38:DQ:63:ARG:HG2	1.76	0.86
46:DY:28:LEU:HD11	46:DY:43:LEU:HD13	1.55	0.86
1:AA:545:C:C2'	1:AA:546:A:H5'	2.06	0.86
2:AB:71:THR:O	2:AB:72:LYS:HG2	1.76	0.86
8:AH:63:LYS:O	8:AH:70:VAL:HG23	1.75	0.86
22:BA:1870:C:H4'	22:BA:1871:A:OP1	1.73	0.86
22:BA:1941:C:H5'	22:BA:1941:C:C6	2.11	0.86
20:CT:73:ARG:HH11	20:CT:73:ARG:HG2	1.40	0.86
22:DA:15:G:OP1	48:D0:20:ALA:HB2	1.75	0.86
22:DA:802:A:O2'	22:DA:803:U:H5'	1.74	0.86
22:DA:2210:U:H4'	22:DA:2211:A:C5'	2.05	0.86
57:DB:42:C:O2'	57:DB:43:C:H5'	1.75	0.86
58:DF:39:VAL:HA	58:DF:49:LEU:HG	1.58	0.86
45:DX:63:ILE:HD12	45:DX:64:ASP:H	1.39	0.86
1:AA:1068:G:O2'	1:AA:1069:C:H5'	1.75	0.86
3:AC:119:ILE:HG21	3:AC:197:VAL:HG11	1.57	0.86
22:BA:1471:G:H2'	22:BA:1472:C:H6	1.41	0.86
41:BT:31:VAL:C	41:BT:32:LEU:HD23	2.01	0.86
53:CA:154:U:H2'	53:CA:155:A:H5'	1.55	0.86
53:CA:794:A:H2'	53:CA:795:C:C6	2.10	0.86
2:CB:26:MET:HE2	2:CB:29:PHE:HD2	1.41	0.86
22:DA:338:G:H2'	22:DA:339:U:H5'	1.55	0.86
22:DA:2582:G:O2'	22:DA:2583:G:H5'	1.75	0.86
1:AA:667:G:H4'	15:AO:50:HIS:CE1	2.10	0.86
31:BJ:88:THR:HG22	31:BJ:91:GLU:CG	2.05	0.86
34:BM:108:VAL:HG13	34:BM:109:PRO:HD2	1.57	0.86
53:CA:413:G:N1	4:CD:32:LYS:HE3	1.91	0.86
22:DA:1422:G:H4'	22:DA:1493:C:OP1	1.76	0.86
57:DB:12:C:H4'	57:DB:13:G:OP1	1.76	0.86
22:BA:90:U:H2'	22:BA:91:A:C8	2.10	0.86
22:BA:1073:A:C3'	22:BA:1074:G:C5'	2.54	0.86
25:BD:12:THR:CG2	25:BD:13:ARG:N	2.39	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:84:LYS:HD2	28:BG:133:LYS:HG2	1.56	0.86
33:BL:27:LEU:HD12	33:BL:27:LEU:N	1.87	0.86
37:BP:17:PRO:HG3	37:BP:83:ILE:O	1.76	0.86
53:CA:345:C:H4'	53:CA:346:G:H5''	1.58	0.86
53:CA:1118:U:H1'	53:CA:1179:A:C4	2.10	0.86
12:CL:97:VAL:O	12:CL:97:VAL:HG23	1.72	0.86
20:CT:60:GLN:HB3	20:CT:65:LEU:HD12	1.57	0.86
22:DA:192:C:H2'	22:DA:193:U:H5'	1.55	0.86
22:DA:1700:A:O2'	22:DA:1701:A:H5'	1.76	0.86
58:DF:104:THR:HG22	58:DF:105:ILE:HG13	1.57	0.86
1:AA:654:G:H2'	1:AA:655:A:H8	1.41	0.85
11:AK:14:GLN:HA	11:AK:76:TYR:O	1.76	0.85
31:BJ:18:VAL:HG22	31:BJ:140:LEU:CD1	2.06	0.85
46:BY:9:LYS:HA	46:BY:9:LYS:NZ	1.90	0.85
53:CA:33:A:H2'	53:CA:34:C:C6	2.10	0.85
53:CA:72:A:N6	53:CA:99:C:H1'	1.90	0.85
53:CA:1493:A:H3'	22:DA:1913:A:N6	1.91	0.85
9:CI:10:ARG:HG3	9:CI:14:SER:O	1.75	0.85
22:DA:141:G:H3'	22:DA:142:A:O4'	1.76	0.85
22:DA:1447:C:H2'	22:DA:1448:G:H8	1.40	0.85
22:DA:2800:A:HO2'	22:DA:2801:G:H4'	1.40	0.85
29:DH:97:ARG:O	29:DH:98:ASP:HB2	1.76	0.85
22:BA:357:C:H2'	22:BA:358:U:C6	2.11	0.85
22:BA:1417:C:O2'	22:BA:1418:G:H5'	1.75	0.85
22:BA:1498:C:HO2'	22:BA:1499:C:H6	1.22	0.85
22:BA:2135:A:HO2'	22:BA:2136:G:H8	0.87	0.85
22:DA:2617:U:H2'	22:DA:2618:G:H5'	1.58	0.85
1:AA:662:U:H2'	1:AA:663:A:C8	2.11	0.85
19:AS:39:ILE:HD11	19:AS:70:LEU:HD23	1.58	0.85
22:BA:1073:A:H3'	22:BA:1074:G:C5'	2.06	0.85
25:BD:186:LEU:HD11	37:BP:3:ILE:CD1	2.07	0.85
53:CA:1217:C:O2'	53:CA:1218:C:H6	1.59	0.85
22:DA:999:U:O2'	22:DA:1000:A:H5'	1.75	0.85
57:DB:40:U:O2	57:DB:43:C:H2'	1.75	0.85
25:DD:10:GLY:O	25:DD:11:MET:HB2	1.76	0.85
28:DG:86:LEU:HA	28:DG:163:TYR:HB3	1.58	0.85
34:DM:136:MET:HE2	43:DV:57:TYR:CD2	2.12	0.85
46:DY:1:MET:HE2	46:DY:1:MET:H1	1.40	0.85
4:AD:69:ARG:HA	4:AD:69:ARG:HE	1.41	0.85
5:AE:89:THR:HG22	5:AE:90:GLY:N	1.91	0.85
26:BE:189:THR:OG1	26:BE:191:ASP:HB3	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:134:GLN:HE21	27:BF:134:GLN:N	1.74	0.85
33:BL:78:ARG:HB3	33:BL:113:ALA:HB3	1.58	0.85
53:CA:197:A:N6	53:CA:221:C:H4'	1.91	0.85
53:CA:1086:U:H6	53:CA:1086:U:C5'	1.89	0.85
53:CA:1139:G:H4'	53:CA:1140:C:C5'	2.07	0.85
54:CG:64:ALA:HB2	54:CG:126:ALA:HB1	1.57	0.85
1:AA:204:G:H1'	1:AA:465:A:C2	2.11	0.85
1:AA:390:U:H2'	1:AA:391:G:H8	1.42	0.85
1:AA:968:A:H4'	1:AA:969:A:OP2	1.76	0.85
22:BA:197:A:N6	22:BA:2430:A:H2'	1.90	0.85
22:BA:1073:A:H3'	22:BA:1074:G:H5''	1.57	0.85
22:BA:1590:A:H2'	22:BA:1591:A:C8	2.10	0.85
22:BA:2103:C:H2'	22:BA:2104:C:H5'	1.57	0.85
26:BE:31:VAL:HG21	26:BE:104:ALA:HB2	1.58	0.85
39:BR:39:LEU:HA	39:BR:49:ILE:CG2	2.07	0.85
53:CA:51:A:H4'	53:CA:52:C:C5'	2.05	0.85
19:CS:40:PHE:HB3	19:CS:41:PRO:CD	2.06	0.85
22:DA:181:A:H2	22:DA:434:U:H1'	1.40	0.85
22:DA:2385:C:HO2'	22:DA:2386:A:H8	1.22	0.85
25:DD:118:PHE:CD1	25:DD:119:ALA:N	2.44	0.85
37:DP:63:ILE:HA	37:DP:68:GLY:HA2	1.58	0.85
5:AE:83:PRO:HB3	5:AE:96:GLN:NE2	1.91	0.85
21:AU:19:LYS:HE2	21:AU:19:LYS:CA	2.06	0.85
22:BA:1019:U:H3	22:BA:1142:A:H62	1.23	0.85
35:BN:53:THR:HA	35:BN:56:LYS:HG3	1.59	0.85
36:BO:30:ARG:HG2	36:BO:31:THR:H	1.41	0.85
53:CA:818:G:H3'	53:CA:819:A:H5'	1.56	0.85
53:CA:972:C:O2'	10:CJ:57:VAL:HG23	1.75	0.85
53:CA:1101:A:H4'	53:CA:1102:A:O5'	1.76	0.85
54:CG:137:ARG:CZ	54:CG:138:GLU:HG2	2.07	0.85
22:DA:532:A:H3'	38:DQ:27:ARG:NH1	1.92	0.85
22:DA:873:C:H4'	34:DM:64:TRP:CD1	2.10	0.85
28:DG:124:CYS:HB3	28:DG:130:ILE:HA	1.56	0.85
32:DK:94:PRO:HG3	32:DK:115:ILE:HD12	1.59	0.85
1:AA:1157:A:H1'	1:AA:1181:G:N2	1.90	0.85
4:AD:145:ARG:HD2	4:AD:147:LYS:HE2	1.58	0.85
6:AF:17:GLN:HG2	4:CD:188:SER:HB2	1.55	0.85
22:BA:1050:A:C2	22:BA:2751:G:C5	2.64	0.85
32:BK:71:ARG:HB3	32:BK:72:PRO:HD3	1.57	0.85
53:CA:932:C:H5''	54:CG:2:ARG:HD3	1.58	0.85
22:DA:95:A:H4'	46:DY:38:GLN:O	1.75	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:671:C:O2'	22:DA:672:C:H5'	1.75	0.85
22:DA:1915:U:O2'	22:DA:1916:A:H5'	1.76	0.85
22:DA:2284:A:O2'	22:DA:2285:C:H5'	1.77	0.85
43:DV:30:ILE:HG12	43:DV:91:PHE:HB2	1.58	0.85
1:AA:87:C:H2'	1:AA:88:U:H6	1.42	0.85
2:AB:19:THR:HA	2:AB:37:VAL:HG23	1.57	0.85
8:AH:74:ILE:CD1	8:AH:128:VAL:HG22	2.06	0.85
31:BJ:111:LYS:HD3	31:BJ:112:GLY:H	1.07	0.85
34:BM:40:ARG:HB2	34:BM:93:VAL:CG2	2.05	0.85
41:BT:48:GLN:HE21	41:BT:48:GLN:HA	1.41	0.85
2:CB:147:LEU:HD12	2:CB:147:LEU:H	1.41	0.85
5:CE:82:HIS:CE1	8:CH:95:MET:HE3	2.12	0.85
8:CH:23:ALA:HA	8:CH:62:LEU:HD23	1.59	0.85
10:CJ:64:GLN:CB	14:CN:98:ALA:HB3	2.06	0.85
26:DE:112:LEU:HD12	26:DE:118:LEU:HD13	1.57	0.85
1:AA:129:A:O2'	1:AA:130:A:H5''	1.77	0.85
1:AA:1338:G:H2'	1:AA:1339:A:C8	2.10	0.85
10:AJ:42:LEU:HB3	10:AJ:43:PRO:HD2	1.57	0.85
10:AJ:65:TYR:HB3	14:AN:95:LEU:HD11	1.57	0.85
22:BA:1455:G:H5'	22:BA:1455:G:C8	2.11	0.85
24:BC:14:HIS:O	24:BC:203:VAL:HG11	1.76	0.85
26:BE:119:ILE:HD13	26:BE:187:VAL:HA	1.59	0.85
47:BZ:24:LEU:HD23	47:BZ:24:LEU:C	2.01	0.85
53:CA:1147:C:H4'	9:CI:6:TYR:CE1	2.12	0.85
53:CA:1242:G:C2	53:CA:1243:C:H1'	2.12	0.85
53:CA:1268:G:H21	53:CA:1327:C:H1'	1.42	0.85
22:DA:1511:G:HO2'	22:DA:1512:C:H6	1.23	0.85
22:DA:2389:G:C5'	22:DA:2390:U:H5'	2.07	0.85
24:DC:8:THR:O	24:DC:9:SER:HB3	1.77	0.85
58:DF:177:ARG:CD	58:DF:178:LYS:H	1.90	0.85
29:DH:116:ARG:O	29:DH:117:LEU:HG	1.76	0.85
34:DM:36:VAL:HG22	43:DV:82:TYR:HB2	1.59	0.85
46:DY:57:LEU:HD13	46:DY:60:LYS:HE3	1.58	0.85
2:AB:17:HIS:CD2	2:AB:202:ASN:HD21	1.94	0.85
6:AF:3:HIS:CB	6:AF:92:THR:HG23	2.07	0.85
22:BA:216:A:H2'	22:BA:217:A:H8	1.41	0.85
22:BA:1714:U:H2'	22:BA:1714:U:O2	1.77	0.85
24:BC:16:VAL:N	24:BC:203:VAL:CG1	2.39	0.85
53:CA:1396:A:H4'	53:CA:1397:C:O5'	1.75	0.85
22:DA:533:G:OP1	38:DQ:27:ARG:HD3	1.76	0.85
22:DA:878:A:H4'	22:DA:898:C:H42	1.40	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1258:U:H2'	22:DA:1259:G:C8	2.10	0.85
25:DD:51:THR:CG2	25:DD:76:GLY:HA3	2.05	0.85
36:DO:11:ALA:HB2	36:DO:96:GLY:N	1.92	0.85
5:AE:100:GLU:HB3	5:AE:121:ASN:HA	1.59	0.84
25:BD:106:LYS:N	25:BD:106:LYS:HD2	1.90	0.84
31:BJ:111:LYS:CD	31:BJ:112:GLY:H	1.88	0.84
53:CA:1348:U:HO2'	53:CA:1349:A:H8	1.25	0.84
20:CT:74:HIS:O	20:CT:78:LEU:HB2	1.76	0.84
22:DA:1012:U:O4	31:DJ:30:THR:HG21	1.76	0.84
22:DA:1070:A:H5'	22:DA:1071:G:H5''	1.59	0.84
22:DA:2093:G:C2	22:DA:2094:A:C5	2.65	0.84
22:DA:2319:G:O2'	22:DA:2321:U:O4	1.94	0.84
58:DF:59:ILE:HD13	58:DF:137:PHE:HZ	1.41	0.84
42:DU:3:LYS:HG2	42:DU:84:PHE:HZ	1.42	0.84
1:AA:1277:C:HO2'	1:AA:1279:G:H8	0.86	0.84
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.11	0.84
4:AD:195:ASN:O	4:AD:196:GLU:HG3	1.76	0.84
53:CA:87:C:O2'	53:CA:88:U:H4'	1.77	0.84
10:CJ:15:HIS:HA	10:CJ:18:ILE:CG2	2.07	0.84
32:DK:60:ALA:HA	32:DK:87:LEU:HD23	1.56	0.84
39:DR:27:ILE:HG22	39:DR:28:ALA:N	1.90	0.84
1:AA:339:C:H2'	1:AA:340:U:H6	1.42	0.84
11:AK:100:ASN:HB2	11:AK:106:ILE:HG21	1.59	0.84
22:BA:760:G:H2'	22:BA:761:A:H5'	1.60	0.84
22:BA:1347:A:C2'	22:BA:1348:C:H5'	2.07	0.84
50:B2:34:ARG:NH1	50:B2:39:ARG:HG2	1.93	0.84
53:CA:1322:C:O2'	53:CA:1323:G:H5'	1.77	0.84
53:CA:1504:G:C3'	53:CA:1505:G:H5'	2.07	0.84
22:DA:2466:C:OP1	52:D4:4:ARG:HB3	1.78	0.84
58:DF:91:ARG:HB3	58:DF:91:ARG:NH2	1.91	0.84
31:DJ:59:ALA:O	31:DJ:62:VAL:HG12	1.77	0.84
38:DQ:87:VAL:HG12	38:DQ:88:GLU:H	1.42	0.84
41:DT:44:LYS:O	41:DT:48:GLN:HG2	1.78	0.84
43:DV:4:ILE:HB	43:DV:63:ILE:HG13	1.58	0.84
1:AA:366:A:O2'	1:AA:394:G:N2	2.10	0.84
12:AL:62:VAL:HG21	12:AL:94:TYR:CE2	2.12	0.84
53:CA:66:A:H2'	53:CA:66:A:N3	1.91	0.84
53:CA:1458:G:O3'	20:CT:22:SER:HA	1.76	0.84
22:DA:207:A:H2'	22:DA:208:C:C6	2.12	0.84
31:DJ:74:TYR:CE2	31:DJ:103:ILE:HD11	2.11	0.84
10:AJ:91:ASP:C	10:AJ:92:LEU:HD23	2.02	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AU:19:LYS:HE2	21:AU:19:LYS:HA	1.57	0.84
22:BA:196:A:H2'	22:BA:805:G:O6	1.77	0.84
22:BA:1945:G:H2'	22:BA:1946:U:H6	1.42	0.84
28:BG:83:THR:HA	28:BG:84:LYS:CE	2.08	0.84
38:BQ:91:ARG:HB3	38:BQ:93:ILE:HG22	1.57	0.84
52:B4:9:LYS:O	52:B4:10:LEU:HD23	1.77	0.84
2:CB:162:VAL:HG13	2:CB:184:ALA:CB	2.08	0.84
4:CD:2:ARG:HE	4:CD:114:ARG:HD2	1.41	0.84
11:CK:81:LEU:HD11	11:CK:104:PHE:CD2	2.12	0.84
17:CQ:23:ALA:C	17:CQ:24:ILE:HD12	2.02	0.84
17:CQ:61:ARG:HG2	17:CQ:75:VAL:HG11	1.60	0.84
22:DA:172:A:H2'	22:DA:173:A:H8	1.42	0.84
22:DA:616:A:O2'	22:DA:617:G:H8	1.61	0.84
22:DA:1277:G:H5'	35:DN:20:MET:CE	2.07	0.84
25:DD:11:MET:HE1	25:DD:192:ALA:HA	1.57	0.84
26:DE:170:ARG:NH2	26:DE:176:ASP:HB2	1.91	0.84
28:DG:83:THR:C	28:DG:84:LYS:HD3	2.02	0.84
33:DL:57:LEU:HD12	33:DL:60:ARG:HD2	1.58	0.84
1:AA:1370:G:O5'	9:AI:110:VAL:HG21	1.77	0.84
22:BA:153:U:O2'	22:BA:154:U:H5'	1.77	0.84
22:BA:2093:G:O2'	22:BA:2094:A:H5'	1.77	0.84
24:BC:12:ARG:HH11	24:BC:12:ARG:CG	1.89	0.84
28:BG:70:LEU:O	28:BG:74:MET:HG3	1.78	0.84
53:CA:987:G:C4	53:CA:988:G:N7	2.46	0.84
53:CA:989:U:O2'	53:CA:990:C:C5'	2.25	0.84
53:CA:1058:G:OP1	3:CC:198:LYS:HE2	1.77	0.84
3:CC:63:ILE:HG12	3:CC:65:VAL:HG23	1.59	0.84
3:CC:148:ILE:HD13	3:CC:201:ILE:HG12	1.60	0.84
22:DA:1359:A:C2	22:DA:1360:G:H1'	2.13	0.84
22:DA:1521:G:C6	22:DA:1522:A:N6	2.44	0.84
22:DA:2001:C:H4'	22:DA:2689:U:H2'	1.58	0.84
22:DA:2636:C:H2'	22:DA:2637:U:H6	1.42	0.84
22:DA:2838:G:H1'	35:DN:45:ARG:HH22	1.41	0.84
34:DM:35:ALA:HB3	34:DM:99:GLY:H	1.41	0.84
40:DS:29:VAL:CG1	40:DS:55:ILE:HD11	2.07	0.84
2:AB:101:THR:HG22	2:AB:174:GLU:OE1	1.78	0.84
5:AE:109:ALA:O	5:AE:110:MET:HG2	1.77	0.84
9:AI:119:LYS:HG3	9:AI:122:ARG:HB3	1.58	0.84
16:AP:22:ALA:CB	16:AP:32:PHE:HA	2.06	0.84
22:BA:855:G:N3	44:BW:23:LYS:HD3	1.92	0.84
22:BA:1082:U:H5'	30:BI:117:THR:O	1.78	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2813:A:H2	22:BA:2887:A:N6	1.75	0.84
24:BC:93:VAL:HG13	24:BC:94:LEU:N	1.90	0.84
27:BF:34:THR:HG23	27:BF:89:THR:HG23	1.57	0.84
53:CA:513:C:HO2'	53:CA:514:C:H6	0.84	0.84
22:DA:382:A:H2'	22:DA:383:C:C5'	2.07	0.84
22:DA:480:A:H3'	22:DA:481:G:C5'	2.07	0.84
22:DA:1116:G:N2	22:DA:1117:C:C2	2.45	0.84
22:DA:2190:G:H5'	22:DA:2191:A:OP2	1.77	0.84
22:DA:2401:U:H3'	22:DA:2402:U:H5''	1.59	0.84
22:DA:2714:G:H2'	22:DA:2715:C:C6	2.12	0.84
58:DF:147:ARG:O	58:DF:148:VAL:HG22	1.78	0.84
1:AA:194:C:O2'	1:AA:195:A:H5'	1.77	0.84
12:AL:23:LEU:CB	12:AL:58:ASN:HD22	1.90	0.84
27:BF:40:GLY:C	27:BF:84:ILE:HD11	2.03	0.84
41:BT:87:LEU:HB2	41:BT:91:GLN:HG2	1.57	0.84
2:CB:160:LEU:HD13	2:CB:180:ILE:HG21	1.59	0.84
22:DA:142:A:O2'	22:DA:143:C:H5'	1.77	0.84
40:DS:14:ALA:O	40:DS:18:ARG:HB2	1.77	0.84
46:DY:2:LYS:HD2	46:DY:4:LYS:HE3	1.60	0.84
4:AD:29:THR:C	4:AD:30:LYS:HD3	2.03	0.84
4:AD:47:LEU:CD2	4:AD:52:VAL:HG12	2.07	0.84
8:AH:21:LYS:HE2	8:AH:22:ALA:H	1.42	0.84
22:BA:1085:A:H3'	22:BA:1086:A:H2	1.41	0.84
26:BE:111:GLU:HG2	26:BE:114:ARG:NH1	1.93	0.84
26:BE:146:VAL:HG23	26:BE:167:VAL:CG2	2.08	0.84
35:BN:33:ILE:HD11	35:BN:118:ARG:HD2	1.59	0.84
51:B3:31:ILE:O	51:B3:35:LYS:HE3	1.78	0.84
53:CA:47:C:O2'	53:CA:48:C:H5'	1.76	0.84
53:CA:79:G:H2'	53:CA:80:A:H8	1.42	0.84
22:DA:2286:G:H4'	22:DA:2287:A:O4'	1.78	0.84
52:D4:16:ILE:HG12	52:D4:25:VAL:CG2	2.02	0.84
4:AD:11:SER:HA	4:AD:18:LEU:HD12	1.59	0.84
7:AG:61:PHE:HE1	7:AG:65:LEU:HD22	1.43	0.84
22:BA:269:C:H2'	22:BA:270:A:H5'	1.58	0.84
22:BA:1378:A:O2'	22:BA:1379:U:O5'	1.96	0.84
22:BA:2358:A:H61	33:BL:54:GLN:HE22	1.24	0.84
53:CA:961:U:O2'	53:CA:962:C:H6	1.59	0.84
53:CA:962:C:HO2'	53:CA:963:G:H8	0.85	0.84
53:CA:1202:U:H2'	53:CA:1203:C:C6	2.12	0.84
53:CA:1293:C:H2'	53:CA:1294:G:C8	2.13	0.84
2:CB:9:LEU:HD12	2:CB:11:ALA:C	2.03	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:110:LEU:O	3:CC:110:LEU:HD23	1.77	0.84
9:CI:51:LEU:HB2	9:CI:56:MET:SD	2.17	0.84
22:DA:279:A:C2	22:DA:362:A:H4'	2.13	0.84
22:DA:2429:G:H3'	22:DA:2429:G:OP2	1.78	0.84
22:DA:2492:U:O2'	22:DA:2493:U:H5'	1.78	0.84
24:DC:152:GLN:HE21	24:DC:152:GLN:H	1.21	0.84
43:DV:44:HIS:NE2	43:DV:85:LYS:HB2	1.92	0.84
1:AA:415:A:H2'	1:AA:416:G:H8	1.40	0.83
22:BA:1050:A:C2	22:BA:2751:G:C4	2.66	0.83
25:BD:13:ARG:HH12	37:BP:74:GLN:HE21	1.26	0.83
26:BE:76:PRO:HA	26:BE:82:GLY:HA3	1.60	0.83
48:B0:42:ILE:CD1	48:B0:48:TYR:HB2	2.07	0.83
12:CL:42:LYS:HG2	12:CL:43:LYS:N	1.92	0.83
22:DA:575:A:O2'	22:DA:576:U:H5'	1.77	0.83
22:DA:1056:G:H1'	22:DA:1103:A:N6	1.93	0.83
22:DA:1060:U:C4'	22:DA:1061:U:H2'	2.08	0.83
22:DA:1731:G:HO2'	22:DA:1732:C:H5''	1.42	0.83
57:DB:57:A:HO2'	57:DB:58:A:H8	1.26	0.83
28:DG:167:VAL:HG23	28:DG:168:VAL:H	1.42	0.83
29:DH:8:LYS:HD2	29:DH:9:VAL:N	1.92	0.83
34:DM:27:SER:H	34:DM:66:ARG:HH22	1.20	0.83
38:DQ:16:ILE:HG23	38:DQ:38:VAL:HG21	1.58	0.83
2:AB:218:ALA:HA	2:AB:221:ARG:HH21	1.44	0.83
9:AI:83:THR:HG21	9:AI:102:PHE:HB3	1.60	0.83
53:CA:631:C:H3'	53:CA:632:U:H5'	1.59	0.83
53:CA:1493:A:H8	22:DA:1913:A:H61	1.23	0.83
11:CK:111:ASP:H	21:CU:3:ILE:N	1.76	0.83
22:DA:78:U:O2'	22:DA:79:C:H5'	1.78	0.83
22:DA:558:U:OP1	31:DJ:113:PRO:HD2	1.77	0.83
1:AA:121:U:H6	1:AA:121:U:H5''	1.43	0.83
1:AA:1441:A:H62	1:AA:1461:G:H21	1.26	0.83
2:AB:67:LEU:HD21	2:AB:91:VAL:HG23	1.59	0.83
7:AG:86:VAL:HG22	7:AG:150:PHE:HB3	1.58	0.83
12:AL:1:ALA:HB3	12:AL:5:GLN:OE1	1.78	0.83
20:AT:43:LYS:HB3	20:AT:86:ALA:CB	2.06	0.83
22:BA:1079:C:N4	22:BA:1088:A:H2	1.76	0.83
25:BD:110:THR:HG23	25:BD:171:THR:HG22	1.60	0.83
35:BN:1:MET:O	35:BN:2:ARG:HB2	1.76	0.83
37:BP:28:LYS:HB2	37:BP:82:SER:HB3	1.60	0.83
37:BP:57:ALA:HB1	37:BP:73:PHE:O	1.78	0.83
43:BV:20:LEU:HD23	43:BV:25:LYS:HB2	1.59	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:77:A:H2'	53:CA:78:A:C8	2.12	0.83
53:CA:1038:C:H2'	53:CA:1039:G:C8	2.12	0.83
12:CL:66:ILE:HD13	12:CL:73:LEU:HD12	1.59	0.83
22:DA:637:A:OP2	33:DL:112:LEU:HD22	1.78	0.83
22:DA:1931:U:C2'	22:DA:1932:A:H8	1.91	0.83
25:DD:48:ILE:HG22	25:DD:84:LEU:HD23	1.59	0.83
1:AA:468:A:O2'	1:AA:469:C:H5'	1.78	0.83
1:AA:496:A:H2'	1:AA:496:A:N3	1.92	0.83
12:AL:23:LEU:HB2	12:AL:58:ASN:HD22	1.43	0.83
12:AL:49:ARG:HH11	12:AL:49:ARG:CG	1.85	0.83
22:BA:866:A:O2'	22:BA:867:C:H5'	1.78	0.83
22:BA:1069:A:O2'	22:BA:1070:A:H5''	1.77	0.83
22:BA:2801:G:O2'	22:BA:2802:G:H5'	1.79	0.83
46:BY:7:ARG:H	46:BY:60:LYS:NZ	1.77	0.83
54:CG:41:ILE:HG21	54:CG:115:MET:CE	2.08	0.83
22:DA:704:G:H2'	22:DA:726:G:H22	1.44	0.83
41:DT:29:THR:H	41:DT:87:LEU:HB2	1.42	0.83
1:AA:718:A:C8	11:AK:117:HIS:HB3	2.13	0.83
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.14	0.83
4:AD:60:VAL:HA	4:AD:63:ILE:HG22	1.60	0.83
22:BA:1199:U:H2'	22:BA:1200:C:C6	2.13	0.83
23:BB:52:A:H4'	23:BB:53:A:OP1	1.74	0.83
28:BG:88:LEU:HD11	28:BG:95:ALA:HB2	1.58	0.83
37:BP:83:ILE:C	37:BP:83:ILE:HD13	2.03	0.83
41:BT:28:ASN:HA	41:BT:91:GLN:NE2	1.94	0.83
22:DA:739:A:O2'	22:DA:740:C:C5	2.31	0.83
22:DA:1039:A:H2	22:DA:1116:G:H22	1.25	0.83
22:DA:1207:C:HO2'	22:DA:1208:C:H6	0.87	0.83
22:DA:2461:A:H1'	22:DA:2492:U:N3	1.92	0.83
24:DC:52:HIS:HA	24:DC:216:ARG:HB2	1.59	0.83
38:DQ:4:LYS:CD	38:DQ:7:VAL:HG22	2.08	0.83
1:AA:724:G:O2'	1:AA:725:G:H5'	1.78	0.83
1:AA:765:G:H1	1:AA:812:G:HO2'	1.19	0.83
22:BA:915:C:O2'	22:BA:916:G:H5'	1.78	0.83
22:BA:1414:C:C4	22:BA:1415:U:H5	1.96	0.83
22:BA:2510:C:H6	22:BA:2510:C:C5'	1.89	0.83
36:BO:58:ILE:O	36:BO:62:LEU:HD11	1.79	0.83
22:DA:1277:G:H5'	35:DN:20:MET:HE3	1.59	0.83
22:DA:2339:C:HO2'	22:DA:2340:A:H8	0.86	0.83
30:DI:104:GLN:HA	30:DI:107:GLU:HB2	1.60	0.83
42:DU:54:PRO:HG2	42:DU:55:GLY:H	1.40	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:210:C:H4'	1:AA:211:G:N2	1.94	0.83
22:BA:1707:G:H2'	22:BA:1708:C:H6	1.43	0.83
24:BC:158:GLY:H	24:BC:194:VAL:HG13	1.40	0.83
26:BE:127:GLU:CD	26:BE:127:GLU:H	1.83	0.83
31:BJ:117:ALA:HA	31:BJ:120:ARG:NH2	1.94	0.83
37:BP:3:ILE:HD13	37:BP:3:ILE:O	1.77	0.83
38:BQ:93:ILE:CG2	38:BQ:94:LEU:H	1.90	0.83
53:CA:694:A:C3'	53:CA:695:A:H5''	2.09	0.83
22:DA:1387:A:H5'	22:DA:1469:A:H1'	1.60	0.83
22:DA:2345:G:H4'	22:DA:2346:A:H5''	1.59	0.83
57:DB:94:A:OP1	43:DV:19:ARG:HD3	1.77	0.83
29:DH:68:ARG:CD	29:DH:71:LYS:HD3	2.07	0.83
31:DJ:6:ALA:HB3	31:DJ:45:THR:HB	1.61	0.83
4:AD:21:LYS:O	4:AD:21:LYS:HD3	1.78	0.83
31:BJ:25:LEU:HD22	31:BJ:25:LEU:C	2.03	0.83
38:BQ:4:LYS:HG3	38:BQ:5:ARG:N	1.93	0.83
38:BQ:27:ARG:HG3	38:BQ:27:ARG:NH1	1.92	0.83
38:BQ:40:LYS:HB2	38:BQ:40:LYS:NZ	1.93	0.83
49:B1:7:LYS:HA	49:B1:23:THR:HG22	1.60	0.83
53:CA:1446:A:H2'	53:CA:1447:A:H5'	1.61	0.83
55:CM:77:LYS:HA	55:CM:80:MET:HE2	1.60	0.83
22:DA:426:C:O2'	22:DA:427:U:H5'	1.79	0.83
28:DG:148:ARG:HB2	28:DG:152:ARG:NH2	1.94	0.83
51:D3:22:LYS:H	51:D3:48:MET:HB3	1.44	0.83
29:BH:94:ILE:HG21	29:BH:99:ILE:HG12	1.59	0.83
32:BK:114:LYS:O	32:BK:118:LEU:HD13	1.79	0.83
6:CF:86:ARG:HD3	18:CR:63:TYR:O	1.77	0.83
9:CI:11:ARG:HD3	9:CI:106:ASP:OD1	1.78	0.83
22:DA:389:G:C8	22:DA:2413:G:H4'	2.14	0.83
43:DV:63:ILE:O	43:DV:70:ILE:HD11	1.79	0.83
2:AB:139:GLU:O	2:AB:143:LEU:HD23	1.79	0.83
34:BM:2:LEU:HD23	34:BM:69:PRO:HD2	1.60	0.83
45:BX:5:GLN:NE2	45:BX:49:ARG:H	1.77	0.83
53:CA:496:A:N3	53:CA:496:A:H2'	1.91	0.83
53:CA:989:U:O2'	53:CA:990:C:H5''	1.79	0.83
53:CA:1520:C:H2'	53:CA:1521:C:C6	2.12	0.83
55:CM:64:VAL:HG12	55:CM:65:GLU:HG3	1.59	0.83
56:CP:52:LEU:HD21	56:CP:75:ILE:HG12	1.59	0.83
22:DA:241:A:H4'	22:DA:242:G:OP1	1.77	0.83
22:DA:443:A:H61	26:DE:36:ALA:HB1	1.43	0.83
22:DA:1751:U:H2'	22:DA:1752:C:C6	2.13	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:148:ILE:CD1	26:DE:187:VAL:HG21	2.03	0.83
19:AS:43:MET:O	19:AS:61:VAL:HG21	1.79	0.82
22:BA:636:G:C4	33:BL:111:ILE:HD11	2.13	0.82
24:BC:210:ALA:O	24:BC:215:VAL:HG23	1.79	0.82
31:BJ:56:VAL:HG12	31:BJ:57:LEU:N	1.94	0.82
8:CH:85:TYR:CD2	8:CH:123:GLU:HB2	2.14	0.82
17:CQ:19:SER:HB3	17:CQ:70:LYS:NZ	1.93	0.82
22:DA:616:A:C2'	22:DA:617:G:H8	1.91	0.82
58:DF:39:VAL:HG13	58:DF:49:LEU:CD2	2.09	0.82
49:D1:32:LYS:HE3	49:D1:52:LYS:OXT	1.79	0.82
6:AF:42:TRP:HZ2	6:AF:61:LEU:HD22	1.44	0.82
9:AI:98:ARG:HG3	9:AI:103:VAL:HG21	1.59	0.82
22:BA:1865:U:O2'	22:BA:1866:A:H5''	1.78	0.82
22:BA:2573:C:OP1	62:BA:3705:HOH:O	1.95	0.82
53:CA:117:G:O2'	53:CA:118:U:H5'	1.79	0.82
53:CA:1005:A:C5	53:CA:1006:G:H1'	2.13	0.82
11:CK:55:ARG:H	11:CK:55:ARG:HD2	1.41	0.82
24:DC:94:LEU:HD13	24:DC:100:ARG:HD3	1.59	0.82
49:D1:7:LYS:HD3	51:D3:33:THR:HG21	1.60	0.82
1:AA:1063:C:H2'	1:AA:1064:G:C8	2.15	0.82
1:AA:1303:C:O2'	1:AA:1304:G:H5'	1.78	0.82
2:AB:9:LEU:HD23	2:AB:11:ALA:N	1.94	0.82
2:AB:137:THR:HA	2:AB:140:LEU:HD13	1.60	0.82
3:AC:35:ASP:OD1	3:AC:56:ILE:HG21	1.79	0.82
12:AL:72:ASN:ND2	12:AL:73:LEU:H	1.78	0.82
12:AL:89:LEU:HB3	12:AL:92:VAL:CG2	2.10	0.82
22:BA:559:G:C2'	22:BA:560:C:H5'	2.10	0.82
22:BA:559:G:H2'	22:BA:560:C:H5'	1.61	0.82
22:BA:1734:G:O2'	22:BA:1735:A:H8	1.62	0.82
29:BH:62:LEU:HD12	29:BH:63:ALA:N	1.94	0.82
40:BS:73:LYS:HA	40:BS:73:LYS:CE	2.04	0.82
49:B1:33:LEU:H	49:B1:51:ALA:CB	1.89	0.82
53:CA:1264:U:H2'	53:CA:1265:C:C6	2.14	0.82
2:CB:114:LYS:CE	2:CB:151:LYS:HB2	2.09	0.82
22:DA:27:G:H1'	22:DA:513:A:N6	1.94	0.82
22:DA:1079:C:N4	22:DA:1088:A:H5''	1.92	0.82
31:DJ:5:THR:HA	31:DJ:44:TYR:CD2	2.14	0.82
43:DV:4:ILE:HD11	43:DV:50:MET:HE1	1.61	0.82
45:DX:31:ASN:HD22	45:DX:31:ASN:N	1.76	0.82
1:AA:6:G:O6	5:AE:98:ALA:HB1	1.79	0.82
1:AA:374:A:H5''	1:AA:452:A:N1	1.93	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:110:ILE:HD12	2:AB:147:LEU:CD1	2.10	0.82
44:BW:39:GLN:HG2	44:BW:41:GLY:N	1.95	0.82
53:CA:1329:A:H5'	55:CM:25:GLY:N	1.93	0.82
4:CD:33:ILE:O	4:CD:35:GLN:HG2	1.79	0.82
55:CM:13:HIS:HB3	55:CM:16:ILE:HD13	1.62	0.82
22:DA:614:A:H4'	22:DA:616:A:H62	1.44	0.82
57:DB:58:A:C2'	57:DB:59:A:C8	2.60	0.82
29:DH:27:ARG:NH1	45:DX:59:ASP:HA	1.93	0.82
29:DH:84:ALA:HB3	29:DH:148:ALA:HB2	1.61	0.82
48:D0:28:SER:HB3	48:D0:39:ARG:HE	1.43	0.82
1:AA:1167:A:C8	1:AA:1169:A:N6	2.47	0.82
11:AK:19:VAL:HG22	11:AK:82:GLU:HG2	1.61	0.82
12:AL:2:THR:HB	12:AL:5:GLN:HG3	1.60	0.82
22:BA:215:G:H4'	22:BA:216:A:H4'	1.61	0.82
22:BA:675:A:H4'	26:BE:62:GLN:HE22	1.43	0.82
22:BA:1813:G:N3	24:BC:49:THR:HG21	1.94	0.82
22:BA:1931:U:O2'	22:BA:1932:A:H5'	1.78	0.82
22:BA:2508:G:H1'	22:BA:2554:U:O2'	1.80	0.82
22:BA:2637:U:H2'	22:BA:2638:G:H5'	1.61	0.82
22:BA:2870:C:C5	22:BA:2871:U:C5	2.68	0.82
32:BK:51:LYS:HG3	32:BK:95:ILE:HD11	1.60	0.82
33:BL:104:GLN:HA	33:BL:104:GLN:HE21	1.44	0.82
35:BN:85:PRO:HA	35:BN:88:ALA:HB2	1.60	0.82
41:BT:28:ASN:C	41:BT:91:GLN:HE22	1.87	0.82
42:BU:38:ILE:HG22	42:BU:39:ASN:N	1.92	0.82
53:CA:1125:U:C5	10:CJ:40:ILE:HG12	2.14	0.82
5:CE:44:ARG:HG2	5:CE:72:ASN:HA	1.58	0.82
22:DA:1534:U:H6	22:DA:1538:G:N1	1.75	0.82
3:AC:18:ASN:HB3	3:AC:39:ARG:HH12	1.44	0.82
4:AD:33:ILE:O	4:AD:34:GLU:HB3	1.76	0.82
8:AH:9:MET:HE1	8:AH:32:LYS:HA	1.61	0.82
22:BA:1941:C:H5'	22:BA:1941:C:H6	1.43	0.82
28:BG:18:ILE:HD11	28:BG:42:VAL:HG13	1.61	0.82
34:BM:35:ALA:O	34:BM:128:THR:HA	1.79	0.82
37:BP:63:ILE:HA	37:BP:68:GLY:HA2	1.58	0.82
40:BS:18:ARG:O	40:BS:19:LEU:HB2	1.78	0.82
53:CA:73:C:HO2'	53:CA:74:A:H8	0.86	0.82
2:CB:49:PHE:HA	2:CB:52:ALA:HB3	1.61	0.82
2:CB:67:LEU:HD12	2:CB:157:PRO:HG3	1.61	0.82
3:CC:12:GLY:O	3:CC:13:ILE:HD13	1.80	0.82
22:DA:1808:A:O3'	22:DA:1809:A:H8	1.61	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:105:LEU:HD12	26:DE:200:LEU:HD11	1.61	0.82
41:DT:10:VAL:HG23	41:DT:11:LEU:HD12	1.61	0.82
1:AA:1192:C:H2'	1:AA:1193:G:O4'	1.78	0.82
3:AC:134:LYS:HE3	3:AC:138:GLN:NE2	1.94	0.82
14:AN:50:LEU:HB3	14:AN:51:PRO:HD2	1.60	0.82
22:BA:616:A:O2'	22:BA:617:G:H5'	1.80	0.82
24:BC:77:VAL:HA	24:BC:93:VAL:HA	1.60	0.82
26:BE:119:ILE:HD11	26:BE:187:VAL:CG2	2.08	0.82
32:BK:21:CYS:HA	32:BK:41:ILE:HD12	1.60	0.82
11:CK:126:ARG:HB2	21:CU:33:ARG:CD	2.10	0.82
12:CL:20:VAL:HB	12:CL:23:LEU:HD12	1.59	0.82
22:DA:810:U:O4	33:DL:30:THR:HG22	1.78	0.82
29:DH:31:VAL:HB	29:DH:32:PRO:HD3	1.61	0.82
40:DS:6:LYS:NZ	40:DS:104:THR:HG23	1.95	0.82
52:D4:19:ARG:O	52:D4:20:ASP:HB2	1.79	0.82
22:BA:619:G:H5''	22:BA:620:G:OP2	1.79	0.82
34:BM:73:ILE:HG21	34:BM:91:TYR:CZ	2.14	0.82
40:BS:4:ILE:CG2	40:BS:106:VAL:HG22	2.09	0.82
8:CH:78:SER:HB2	8:CH:124:ILE:O	1.80	0.82
22:DA:503:A:H4'	22:DA:504:A:O5'	1.80	0.82
22:DA:1307:A:H62	22:DA:1606:C:H6	0.86	0.82
22:DA:2756:U:H4'	22:DA:2757:A:O5'	1.80	0.82
35:DN:73:ASN:CA	35:DN:76:VAL:HG22	2.09	0.82
1:AA:1285:A:H5'	1:AA:1286:U:C4	2.13	0.82
18:AR:40:PRO:HB2	18:AR:42:ARG:HG2	1.60	0.82
22:BA:1045:C:H5''	22:BA:1046:A:C5'	2.09	0.82
29:BH:67:ALA:HA	29:BH:138:VAL:HB	1.60	0.82
31:BJ:26:GLY:HA2	31:BJ:29:ALA:HB3	1.62	0.82
33:BL:110:VAL:HG12	33:BL:111:ILE:N	1.94	0.82
38:BQ:49:ARG:HG3	38:BQ:49:ARG:NH1	1.88	0.82
53:CA:1054:C:O2'	53:CA:1055:A:H5''	1.79	0.82
2:CB:67:LEU:CD1	2:CB:157:PRO:HG3	2.10	0.82
10:CJ:57:VAL:HG22	10:CJ:58:ASN:N	1.95	0.82
22:DA:618:G:O2'	22:DA:619:G:H5'	1.79	0.82
22:DA:1038:G:H2'	22:DA:1039:A:C5'	2.10	0.82
22:DA:2752:C:H2'	22:DA:2753:A:C8	2.15	0.82
25:DD:108:ASP:OD1	25:DD:207:VAL:HG23	1.77	0.82
42:DU:58:VAL:HG13	42:DU:60:LYS:HG2	1.60	0.82
51:D3:6:VAL:HG12	51:D3:9:ALA:H	1.44	0.82
12:AL:64:SER:OG	12:AL:96:THR:HG23	1.79	0.82
17:AQ:18:LYS:HA	17:AQ:47:ASP:CB	2.08	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:800:A:H4'	22:BA:801:G:O5'	1.80	0.82
22:BA:859:G:H22	22:BA:916:G:H2'	1.43	0.82
25:BD:120:GLY:HA2	25:BD:162:ALA:CB	2.09	0.82
39:BR:27:ILE:HG13	39:BR:33:VAL:HG12	1.59	0.82
25:DD:119:ALA:HB3	25:DD:163:GLY:H	1.43	0.82
41:DT:38:ALA:HB1	41:DT:81:LYS:NZ	1.93	0.82
11:AK:109:ILE:HB	21:AU:5:VAL:HG23	1.62	0.81
17:AQ:46:HIS:HA	17:AQ:70:LYS:HE3	1.61	0.81
22:BA:1791:A:O2'	24:BC:205:GLY:HA2	1.80	0.81
28:BG:162:ARG:NH1	28:BG:168:VAL:HG21	1.95	0.81
31:BJ:43:GLU:O	31:BJ:45:THR:HG22	1.80	0.81
35:BN:38:LEU:O	35:BN:38:LEU:HD12	1.80	0.81
38:BQ:65:ASN:HD21	38:BQ:69:ARG:NH2	1.77	0.81
38:BQ:109:VAL:HG12	38:BQ:113:LYS:HD2	1.60	0.81
49:B1:16:THR:HB	49:B1:41:VAL:CG2	2.10	0.81
20:CT:57:VAL:HG12	20:CT:71:ALA:HB2	1.60	0.81
32:DK:61:VAL:HG11	32:DK:112:PHE:HE2	1.45	0.81
1:AA:243:A:H4'	1:AA:244:U:H5'	1.60	0.81
1:AA:1007:U:C2'	1:AA:1008:U:H5''	2.08	0.81
14:AN:15:LEU:N	14:AN:18:LYS:HE2	1.96	0.81
22:BA:228:C:H4'	22:BA:229:C:H5''	1.61	0.81
22:BA:2396:G:O2'	22:BA:2397:G:H5'	1.80	0.81
24:BC:93:VAL:CG1	24:BC:94:LEU:N	2.42	0.81
35:BN:23:ASN:H	35:BN:23:ASN:HD22	1.25	0.81
37:BP:50:ARG:CD	37:BP:51:ASN:H	1.93	0.81
37:BP:102:ARG:O	37:BP:103:THR:HG22	1.78	0.81
38:BQ:88:GLU:OE1	38:BQ:88:GLU:C	2.22	0.81
12:CL:84:GLY:H	12:CL:94:TYR:HA	1.44	0.81
22:DA:100:U:H1'	22:DA:101:A:C5	2.15	0.81
22:DA:678:C:H2'	22:DA:679:C:C6	2.14	0.81
22:DA:2053:G:C2'	22:DA:2054:A:H5'	2.10	0.81
22:DA:2748:A:H1'	28:DG:66:THR:CG2	2.10	0.81
57:DB:110:C:O2'	57:DB:111:U:C5'	2.28	0.81
41:DT:24:MET:HE2	41:DT:24:MET:HA	1.61	0.81
1:AA:473:U:H2'	1:AA:474:G:H8	1.44	0.81
1:AA:1021:A:H2'	1:AA:1022:A:C5'	2.10	0.81
5:AE:81:GLN:HG2	5:AE:149:PRO:CG	2.10	0.81
5:AE:89:THR:HG22	5:AE:90:GLY:H	1.45	0.81
5:AE:135:VAL:O	5:AE:139:THR:HG23	1.81	0.81
10:AJ:36:VAL:HG22	10:AJ:76:ILE:HG23	1.61	0.81
19:AS:6:LYS:HE2	19:AS:6:LYS:HA	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1110:G:HO2'	22:BA:1111:A:H8	1.27	0.81
22:BA:1188:U:C2'	22:BA:1189:A:H5'	2.10	0.81
22:BA:2352:A:C2	44:BW:30:VAL:CG1	2.63	0.81
27:BF:104:THR:HG22	27:BF:105:ILE:HG23	1.63	0.81
33:BL:55:MET:HE2	33:BL:56:PRO:HD2	1.62	0.81
33:BL:77:ILE:HD11	33:BL:108:ALA:HB1	1.59	0.81
33:BL:95:LEU:HD13	33:BL:100:ILE:HD11	1.61	0.81
53:CA:113:G:H21	53:CA:353:A:H8	1.26	0.81
53:CA:597:G:C2'	53:CA:598:U:H5'	2.10	0.81
2:CB:26:MET:HE2	2:CB:29:PHE:CD2	2.15	0.81
22:DA:172:A:H2'	22:DA:173:A:C8	2.15	0.81
22:DA:672:C:O2'	22:DA:673:C:H5'	1.79	0.81
22:DA:867:C:O2'	22:DA:868:U:H6	1.62	0.81
22:DA:2544:G:H5'	22:DA:2645:G:N7	1.95	0.81
22:DA:2798:U:H5'	22:DA:2800:A:N7	1.95	0.81
57:DB:57:A:O2'	57:DB:58:A:H8	1.63	0.81
25:DD:40:LEU:HA	25:DD:44:GLY:HA2	1.60	0.81
28:DG:16:VAL:HG11	28:DG:44:HIS:CD2	2.15	0.81
28:DG:164:ALA:O	28:DG:165:ASP:HB2	1.78	0.81
29:DH:1:MET:HE3	29:DH:23:ALA:CB	2.10	0.81
41:DT:39:THR:HG21	41:DT:42:GLU:CB	2.08	0.81
49:D1:16:THR:HG21	49:D1:42:VAL:HG23	1.62	0.81
24:BC:20:ASN:HB3	24:BC:23:LEU:HD23	1.61	0.81
53:CA:1225:A:H4'	19:CS:77:ARG:NH1	1.94	0.81
22:DA:397:U:OP1	45:DX:30:PRO:HA	1.81	0.81
22:DA:2135:A:H2'	22:DA:2136:G:O4'	1.80	0.81
22:DA:2311:A:H5'	22:DA:2312:U:C5	2.15	0.81
57:DB:17:C:O2'	57:DB:18:G:H5'	1.80	0.81
22:BA:1022:G:N2	22:BA:1142:A:C2	2.48	0.81
22:BA:1469:A:H2'	22:BA:1470:A:C8	2.16	0.81
22:BA:1558:C:H4'	22:BA:1559:U:O5'	1.78	0.81
25:BD:97:SER:C	25:BD:99:GLU:HG2	2.05	0.81
27:BF:131:VAL:HG22	27:BF:151:LEU:H	1.45	0.81
28:BG:11:PRO:O	28:BG:14:VAL:HG22	1.80	0.81
39:BR:42:ALA:HA	39:BR:46:GLU:CB	2.08	0.81
47:BZ:6:ILE:HD11	47:BZ:47:ILE:HD11	1.62	0.81
53:CA:239:U:H6	53:CA:239:U:C5'	1.94	0.81
2:CB:19:THR:HG22	2:CB:37:VAL:CG2	2.11	0.81
15:CO:47:LYS:HD2	15:CO:47:LYS:H	1.45	0.81
56:CP:44:SER:H	56:CP:46:LYS:NZ	1.78	0.81
22:DA:1839:G:O2'	22:DA:1840:G:H5'	1.81	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2093:G:C6	22:DA:2225:A:C8	2.68	0.81
22:DA:2425:A:H4'	22:DA:2426:A:O5'	1.79	0.81
37:DP:109:ILE:O	37:DP:110:LYS:HG3	1.81	0.81
41:DT:50:LEU:HD23	41:DT:51:PHE:N	1.95	0.81
46:DY:18:LEU:O	46:DY:22:LEU:HD13	1.79	0.81
47:DZ:30:ARG:NH2	47:DZ:33:HIS:HB2	1.94	0.81
2:AB:40:ILE:CD1	2:AB:201:GLY:HA2	2.10	0.81
6:AF:3:HIS:HB2	6:AF:92:THR:HG23	1.63	0.81
22:BA:580:U:H2'	22:BA:581:C:H6	1.45	0.81
22:BA:1330:C:O2'	22:BA:1331:G:H5'	1.79	0.81
22:BA:2336:A:N6	44:BW:40:ARG:HB3	1.96	0.81
22:BA:2339:C:H2'	22:BA:2340:A:C8	2.16	0.81
32:BK:91:SER:O	32:BK:93:GLN:HB2	1.79	0.81
40:BS:42:LYS:O	40:BS:42:LYS:HD3	1.81	0.81
53:CA:876:C:H1'	8:CH:11:THR:HG21	1.60	0.81
5:CE:74:ALA:O	5:CE:75:LEU:HB2	1.79	0.81
22:DA:1611:C:O2'	22:DA:1612:C:H6	1.62	0.81
26:DE:130:LYS:HG3	26:DE:133:LEU:HD13	1.62	0.81
46:DY:17:GLU:HG3	46:DY:53:VAL:HG11	1.63	0.81
50:D2:19:ARG:NH2	50:D2:19:ARG:HB3	1.96	0.81
1:AA:198:G:HO2'	1:AA:199:A:H8	0.83	0.81
8:AH:63:LYS:HB2	8:AH:70:VAL:HG21	1.60	0.81
22:BA:747:U:C5	22:BA:2613:U:C5	2.68	0.81
22:BA:930:G:H1'	47:BZ:24:LEU:HD21	1.63	0.81
22:BA:1945:G:H2'	22:BA:1946:U:C6	2.15	0.81
53:CA:513:C:O2'	53:CA:514:C:H6	1.64	0.81
53:CA:1011:C:H2'	53:CA:1012:A:H8	1.44	0.81
17:CQ:29:LYS:HE2	17:CQ:36:PHE:CZ	2.16	0.81
22:DA:600:G:H5''	26:DE:27:LEU:HD22	1.61	0.81
22:DA:673:C:O2'	22:DA:674:G:H5'	1.81	0.81
22:DA:1676:A:C2	22:DA:1993:U:H5'	2.15	0.81
22:DA:2378:A:C2'	22:DA:2379:G:H5'	2.11	0.81
33:DL:119:PRO:HB3	33:DL:139:GLY:O	1.80	0.81
38:DQ:27:ARG:CA	38:DQ:33:VAL:HG11	2.10	0.81
38:DQ:79:ILE:HD13	38:DQ:79:ILE:C	2.05	0.81
21:AU:16:ARG:HH11	21:AU:19:LYS:HG3	1.44	0.81
22:BA:815:C:OP1	39:BR:85:LYS:HE2	1.80	0.81
22:BA:2820:A:H3'	22:BA:2820:A:H8	1.45	0.81
25:BD:101:PHE:HE2	25:BD:203:VAL:HG22	1.44	0.81
33:BL:96:LYS:HA	33:BL:101:ILE:HG22	1.62	0.81
36:BO:31:THR:CG2	36:BO:34:HIS:H	1.93	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:91:ARG:NH2	38:BQ:93:ILE:HD13	1.96	0.81
53:CA:948:C:H5''	55:CM:104:ASN:HB3	1.62	0.81
3:CC:5:HIS:NE2	3:CC:183:TYR:HE2	1.77	0.81
56:CP:75:ILE:HA	56:CP:78:VAL:CG2	2.11	0.81
20:CT:73:ARG:HH11	20:CT:73:ARG:HG3	1.45	0.81
22:DA:83:A:N6	22:DA:101:A:H5'	1.94	0.81
22:DA:716:A:H2'	22:DA:717:C:H5''	1.63	0.81
22:DA:1097:U:H2'	22:DA:1098:A:O4'	1.80	0.81
22:DA:1360:G:H2'	22:DA:1361:G:H5'	1.61	0.81
22:DA:1714:U:H3'	22:DA:1715:G:C5'	2.11	0.81
1:AA:488:C:O2'	1:AA:489:C:H5'	1.81	0.81
1:AA:1151:A:O2'	1:AA:1152:A:H5''	1.79	0.81
2:AB:59:ILE:HD12	2:AB:60:ALA:N	1.96	0.81
2:AB:86:CYS:SG	2:AB:221:ARG:HB2	2.21	0.81
22:BA:871:U:OP1	34:BM:5:LYS:HG3	1.81	0.81
22:BA:1011:G:O2'	22:BA:1013:C:H5''	1.81	0.81
22:BA:1585:C:H2'	22:BA:1586:A:O4'	1.80	0.81
29:BH:2:GLN:O	29:BH:3:VAL:HG22	1.80	0.81
33:BL:91:ASP:H	33:BL:94:THR:CG2	1.92	0.81
2:CB:119:GLN:HG3	2:CB:124:THR:HG21	1.62	0.81
5:CE:29:ILE:CG2	5:CE:30:PHE:N	2.39	0.81
54:CG:4:ARG:NH2	54:CG:6:ILE:HB	1.96	0.81
22:DA:802:A:H2'	22:DA:803:U:H6	1.43	0.81
22:DA:870:U:H2'	22:DA:871:U:H5'	1.63	0.81
22:DA:1023:U:H5'	22:DA:1023:U:H6	1.46	0.81
22:DA:1401:G:H2'	22:DA:1402:U:C5	2.16	0.81
22:DA:2757:A:N1	28:DG:66:THR:HG21	1.96	0.81
34:DM:8:LYS:HA	34:DM:8:LYS:HE3	1.60	0.81
47:DZ:16:LEU:H	47:DZ:16:LEU:HD22	1.46	0.81
1:AA:109:A:H2'	1:AA:326:G:N2	1.95	0.81
2:AB:163:ILE:HG23	2:AB:164:ASP:N	1.96	0.81
22:BA:784:G:C6	24:BC:227:VAL:HG11	2.16	0.81
2:CB:114:LYS:CA	2:CB:117:GLU:HG2	2.10	0.81
2:CB:206:ILE:HA	2:CB:209:VAL:CG2	2.10	0.81
9:CI:90:ASP:HB3	9:CI:93:LEU:HD23	1.62	0.81
21:CU:35:GLU:HG3	21:CU:36:PHE:N	1.96	0.81
22:DA:574:A:H4'	22:DA:575:A:C5'	2.11	0.81
22:DA:1076:C:O2	30:DI:92:PRO:HG2	1.81	0.81
32:DK:2:ILE:HG22	32:DK:3:GLN:N	1.95	0.81
46:DY:28:LEU:HG	46:DY:42:LEU:HD22	1.63	0.81
8:AH:12:ARG:HH11	8:AH:26:MET:HB2	1.46	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1026:G:H2'	22:BA:1027:A:C8	2.15	0.80
22:BA:2502:G:H5'	22:BA:2503:A:H5''	1.62	0.80
24:BC:33:LEU:HD23	24:BC:62:ARG:HD3	1.60	0.80
32:BK:47:ILE:HG13	32:BK:48:PRO:HD2	1.63	0.80
34:BM:71:LYS:HD3	34:BM:95:LEU:HD13	1.63	0.80
39:BR:21:ARG:HG3	39:BR:95:ASP:OD1	1.81	0.80
49:B1:24:LYS:HE2	49:B1:52:LYS:HB2	1.61	0.80
49:B1:49:LYS:HG2	49:B1:50:GLU:H	1.45	0.80
3:CC:126:ARG:HA	3:CC:126:ARG:HE	1.45	0.80
4:CD:195:ASN:HB3	4:CD:197:HIS:CD2	2.16	0.80
22:DA:381:G:C5'	45:DX:15:ASN:HD22	1.93	0.80
22:DA:447:A:H5'	22:DA:449:A:N7	1.96	0.80
22:DA:629:G:OP1	51:D3:16:THR:HB	1.80	0.80
22:DA:1490:A:H8	24:DC:73:ILE:HD12	1.44	0.80
22:DA:1989:G:H2'	22:DA:1990:C:H5'	1.64	0.80
22:DA:2662:A:H2'	22:DA:2663:G:O4'	1.81	0.80
57:DB:42:C:H41	58:DF:87:LYS:HZ3	1.27	0.80
57:DB:42:C:H2'	57:DB:43:C:C6	2.16	0.80
31:DJ:111:LYS:HB2	31:DJ:115:GLY:HA3	1.63	0.80
37:DP:56:SER:O	37:DP:75:THR:HG22	1.81	0.80
41:DT:20:ALA:HB1	41:DT:31:VAL:HG21	1.61	0.80
1:AA:1251:A:H2'	1:AA:1252:A:H8	1.46	0.80
4:AD:151:GLN:H	4:AD:154:VAL:CG1	1.93	0.80
10:AJ:14:ASP:HB3	10:AJ:17:LEU:HB3	1.61	0.80
22:BA:2210:U:H4'	22:BA:2211:A:O5'	1.81	0.80
22:BA:2355:G:H4'	44:BW:20:LEU:HD13	1.63	0.80
25:BD:12:THR:HG22	25:BD:13:ARG:H	1.44	0.80
28:BG:60:GLY:O	28:BG:61:TRP:HB2	1.80	0.80
51:B3:21:PHE:HB2	51:B3:49:VAL:CG1	2.10	0.80
53:CA:1422:G:C5'	32:DK:48:PRO:HB3	2.10	0.80
2:CB:114:LYS:HA	2:CB:117:GLU:CG	2.10	0.80
8:CH:85:TYR:CE2	8:CH:123:GLU:HB2	2.15	0.80
56:CP:8:ARG:HB3	56:CP:28:ARG:NH1	1.96	0.80
22:DA:674:G:H1'	26:DE:69:ARG:HE	1.47	0.80
22:DA:878:A:H3'	22:DA:878:A:N3	1.95	0.80
22:DA:945:A:H5'	22:DA:946:C:OP2	1.80	0.80
22:DA:2408:U:O2'	22:DA:2409:G:C5'	2.28	0.80
26:DE:126:VAL:HG11	26:DE:134:LEU:HD22	1.63	0.80
34:DM:112:LEU:HD13	34:DM:112:LEU:O	1.80	0.80
41:DT:43:ILE:CG2	41:DT:58:VAL:HG11	2.11	0.80
43:DV:9:ARG:HG2	43:DV:39:ALA:O	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1303:C:H2'	1:AA:1304:G:C8	2.16	0.80
5:AE:37:VAL:CG1	5:AE:116:VAL:HG21	2.12	0.80
22:BA:1849:G:O2'	22:BA:1850:G:H5'	1.82	0.80
50:B2:3:ARG:HG2	50:B2:3:ARG:NH2	1.85	0.80
50:B2:22:MET:HE3	50:B2:28:ARG:HG2	1.61	0.80
53:CA:157:U:O2'	53:CA:158:G:H5'	1.81	0.80
10:CJ:30:LYS:CG	10:CJ:36:VAL:HG22	2.10	0.80
22:DA:647:G:H2'	22:DA:648:G:C8	2.13	0.80
22:DA:2091:C:N4	22:DA:2092:U:C5	2.49	0.80
57:DB:44:G:H5''	58:DF:91:ARG:CZ	2.10	0.80
58:DF:48:LEU:HD23	58:DF:48:LEU:H	1.45	0.80
51:D3:18:LYS:HD2	51:D3:19:GLY:H	1.47	0.80
22:BA:272:A:HO2'	22:BA:273:G:H8	1.27	0.80
22:BA:714:U:H5'	22:BA:715:A:OP2	1.81	0.80
31:BJ:81:ILE:HG23	31:BJ:82:GLY:N	1.95	0.80
44:BW:39:GLN:HG3	44:BW:42:THR:N	1.95	0.80
46:BY:7:ARG:N	46:BY:60:LYS:HZ1	1.78	0.80
50:B2:43:THR:O	50:B2:44:VAL:HB	1.80	0.80
53:CA:51:A:H4'	53:CA:52:C:H5'	1.60	0.80
53:CA:1145:A:O2'	53:CA:1146:A:H5''	1.80	0.80
4:CD:2:ARG:HE	4:CD:114:ARG:CD	1.94	0.80
10:CJ:80:THR:O	10:CJ:84:VAL:HG22	1.82	0.80
14:CN:76:PHE:CE2	14:CN:92:ILE:HG21	2.15	0.80
22:DA:1491:G:O2'	22:DA:1492:G:H5'	1.80	0.80
30:DI:55:PRO:HG2	30:DI:70:THR:HG23	1.63	0.80
33:DL:23:ILE:HG13	39:DR:82:HIS:CE1	2.17	0.80
44:DW:9:THR:HG23	44:DW:10:ARG:HG3	1.64	0.80
47:DZ:4:ILE:CD1	47:DZ:58:GLU:HA	2.11	0.80
1:AA:183:C:O2'	1:AA:184:G:H5'	1.81	0.80
1:AA:1314:C:C5	19:AS:5:LYS:HD3	2.15	0.80
22:BA:269:C:C2'	22:BA:270:A:H5'	2.10	0.80
22:BA:666:A:H4'	33:BL:48:ARG:HD2	1.64	0.80
22:BA:2226:C:O2'	22:BA:2227:A:H5'	1.81	0.80
53:CA:78:A:H2'	53:CA:79:G:C8	2.17	0.80
53:CA:1226:C:H41	55:CM:102:LYS:CA	1.94	0.80
53:CA:1284:C:H5''	53:CA:1285:A:OP2	1.80	0.80
6:CF:18:VAL:HG21	6:CF:58:HIS:HD2	1.47	0.80
20:CT:22:SER:O	20:CT:26:MET:HB2	1.82	0.80
22:DA:153:U:O2'	22:DA:154:U:H5'	1.82	0.80
22:DA:1519:G:H5'	22:DA:1520:U:OP2	1.81	0.80
22:DA:2331:G:H1'	44:DW:40:ARG:HB3	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:90:C:H6	57:DB:90:C:H5''	1.44	0.80
28:DG:115:GLN:HG2	28:DG:116:LEU:N	1.96	0.80
39:DR:39:LEU:O	39:DR:40:MET:HB2	1.79	0.80
40:DS:49:LYS:HB3	40:DS:49:LYS:NZ	1.97	0.80
1:AA:567:G:H5'	1:AA:567:G:H8	1.45	0.80
1:AA:1238:A:H5'	1:AA:1336:C:N4	1.94	0.80
10:AJ:14:ASP:CB	10:AJ:17:LEU:HB3	2.11	0.80
14:AN:83:VAL:HG12	14:AN:84:ARG:N	1.96	0.80
25:BD:106:LYS:HD2	25:BD:106:LYS:H	1.44	0.80
34:BM:43:ALA:O	34:BM:46:ILE:HG13	1.82	0.80
53:CA:962:C:O2'	53:CA:963:G:H8	1.65	0.80
4:CD:43:ARG:O	4:CD:45:PRO:HD3	1.82	0.80
54:CG:142:ARG:O	54:CG:146:ALA:HB3	1.82	0.80
11:CK:63:GLN:HB2	11:CK:98:ALA:HB2	1.63	0.80
56:CP:8:ARG:HB3	56:CP:28:ARG:HH11	1.47	0.80
22:DA:84:A:C4	22:DA:103:A:N6	2.49	0.80
22:DA:484:C:N4	22:DA:497:A:C2	2.49	0.80
22:DA:616:A:H2'	22:DA:617:G:C8	2.16	0.80
22:DA:765:C:H2'	22:DA:766:U:C6	2.16	0.80
22:DA:1038:G:H2'	22:DA:1039:A:H5'	1.63	0.80
25:DD:187:LEU:HD12	25:DD:188:LEU:H	1.46	0.80
2:AB:131:LYS:O	2:AB:135:MET:HB2	1.82	0.80
12:AL:23:LEU:HB2	12:AL:58:ASN:ND2	1.96	0.80
22:BA:243:U:OP1	51:B3:5:THR:HG21	1.82	0.80
22:BA:876:C:H2'	22:BA:877:A:O4'	1.80	0.80
22:BA:1734:G:HO2'	22:BA:1735:A:H8	0.82	0.80
22:BA:2315:G:O2'	22:BA:2316:G:H5'	1.81	0.80
25:BD:174:SER:O	25:BD:175:LEU:HB2	1.78	0.80
29:BH:82:SER:O	29:BH:83:LYS:HB2	1.82	0.80
37:BP:59:THR:HG23	37:BP:72:VAL:CG1	2.11	0.80
53:CA:6:G:N3	53:CA:6:G:C2'	2.45	0.80
53:CA:397:A:N7	53:CA:547:A:O2'	2.15	0.80
53:CA:987:G:O2'	53:CA:988:G:C5'	2.30	0.80
22:DA:859:G:N2	22:DA:916:G:H2'	1.96	0.80
22:DA:1078:U:H4'	22:DA:1079:C:O5'	1.81	0.80
22:DA:1275:A:N7	35:DN:16:HIS:HB2	1.97	0.80
22:DA:2825:G:H3'	22:DA:2826:A:H8	1.45	0.80
29:DH:84:ALA:H	29:DH:148:ALA:HA	1.47	0.80
42:DU:43:LYS:HE3	42:DU:45:GLN:CD	2.07	0.80
1:AA:1256:A:H5''	3:AC:26:LYS:HE2	1.64	0.80
22:BA:923:G:N2	44:BW:23:LYS:HZ3	1.80	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:89:LYS:HG2	29:BH:90:LEU:N	1.97	0.80
40:BS:29:VAL:HG13	40:BS:55:ILE:HD11	1.64	0.80
53:CA:177:G:O2'	53:CA:1448:C:H4'	1.82	0.80
53:CA:247:G:O6	53:CA:278:G:C6	2.35	0.80
53:CA:1046:A:O2'	53:CA:1047:G:C5'	2.30	0.80
9:CI:105:ARG:HH11	9:CI:107:ALA:HA	1.46	0.80
12:CL:83:GLY:HA2	12:CL:94:TYR:HD1	1.47	0.80
22:DA:1265:A:H4'	22:DA:1266:G:O5'	1.80	0.80
22:DA:1649:G:O2'	22:DA:1650:A:H5'	1.81	0.80
22:DA:1812:U:H2'	22:DA:1813:G:H8	1.47	0.80
28:DG:1:SER:HB2	28:DG:61:TRP:HB3	1.63	0.80
41:DT:3:ARG:HD2	41:DT:42:GLU:HG2	1.62	0.80
52:D4:7:VAL:HG13	52:D4:8:LYS:N	1.95	0.80
1:AA:1336:C:O2'	1:AA:1337:G:OP2	2.00	0.80
2:AB:202:ASN:ND2	2:AB:205:ALA:HB2	1.96	0.80
4:AD:100:VAL:HG12	4:AD:100:VAL:O	1.81	0.80
22:BA:1970:A:H4'	22:BA:1971:U:O5'	1.82	0.80
22:BA:2063:C:H5'	22:BA:2063:C:H6	1.45	0.80
51:B3:56:LEU:HD23	51:B3:56:LEU:H	1.46	0.80
53:CA:94:G:O2'	53:CA:95:C:H5'	1.80	0.80
53:CA:183:C:O2'	53:CA:184:G:H5'	1.80	0.80
53:CA:926:G:H3'	53:CA:1505:G:H21	1.46	0.80
53:CA:1090:U:H2'	53:CA:1091:U:H6	1.47	0.80
54:CG:41:ILE:HG21	54:CG:115:MET:HE3	1.64	0.80
45:DX:58:ILE:HG12	45:DX:66:VAL:HG11	1.64	0.80
2:AB:86:CYS:HB2	2:AB:88:GLN:HG3	1.63	0.80
32:BK:8:LEU:HD23	32:BK:8:LEU:N	1.97	0.80
40:BS:96:ILE:O	40:BS:96:ILE:HG13	1.80	0.80
44:BW:28:GLU:CB	44:BW:31:LEU:HD21	2.03	0.80
2:CB:185:ILE:HA	2:CB:199:ILE:HG13	1.63	0.80
54:CG:49:LEU:O	54:CG:49:LEU:HD13	1.82	0.80
8:CH:23:ALA:HA	8:CH:62:LEU:CD2	2.12	0.80
22:DA:1355:G:O2'	22:DA:1356:G:H5'	1.82	0.80
22:DA:1716:U:HO2'	22:DA:1717:A:H8	0.82	0.80
22:DA:2074:U:O2'	22:DA:2075:U:H5'	1.82	0.80
22:DA:2092:U:O2'	22:DA:2093:G:C5'	2.30	0.80
29:DH:5:LEU:O	29:DH:6:LEU:HD12	1.82	0.80
29:DH:78:VAL:HB	29:DH:144:VAL:HA	1.63	0.80
51:D3:41:ARG:HH21	51:D3:41:ARG:CG	1.94	0.80
9:AI:112:ARG:HH22	10:AJ:64:GLN:HE22	1.26	0.79
22:BA:638:G:H2'	22:BA:639:U:C6	2.17	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:171:VAL:CG2	24:BC:185:ALA:HA	2.11	0.79
25:BD:186:LEU:CD1	37:BP:3:ILE:HD11	2.11	0.79
39:BR:51:VAL:HB	39:BR:52:PRO:HD3	1.63	0.79
41:BT:28:ASN:HA	41:BT:91:GLN:HE22	1.46	0.79
43:BV:80:HIS:HD2	43:BV:83:LYS:H	1.29	0.79
53:CA:1213:A:O2'	53:CA:1214:C:C5'	2.29	0.79
10:CJ:5:ARG:HG2	10:CJ:79:PRO:HG3	1.63	0.79
14:CN:66:THR:CG2	14:CN:82:LYS:HE3	2.12	0.79
17:CQ:68:LYS:O	17:CQ:69:THR:HG23	1.81	0.79
22:DA:528:A:C2	22:DA:2042:A:H2'	2.16	0.79
22:DA:1474:U:C2'	22:DA:1475:G:H5'	2.12	0.79
22:DA:2420:C:OP1	51:D3:33:THR:HB	1.83	0.79
22:DA:2758:A:H2'	22:DA:2759:G:H5'	1.63	0.79
24:DC:140:VAL:CG2	24:DC:161:VAL:HB	2.12	0.79
25:DD:12:THR:HG22	25:DD:13:ARG:O	1.82	0.79
1:AA:204:G:C3'	1:AA:205:A:H5''	2.09	0.79
25:BD:106:LYS:HB3	25:BD:206:ALA:CB	2.10	0.79
33:BL:95:LEU:HD22	33:BL:100:ILE:CG1	2.11	0.79
34:BM:46:ILE:HD12	34:BM:47:GLU:N	1.96	0.79
35:BN:73:ASN:O	35:BN:76:VAL:HG12	1.82	0.79
53:CA:371:A:O2'	53:CA:372:C:H5'	1.82	0.79
53:CA:1038:C:H2'	53:CA:1039:G:H8	1.47	0.79
12:CL:48:LEU:HD23	12:CL:48:LEU:N	1.96	0.79
22:DA:477:A:O2'	22:DA:478:A:H8	1.63	0.79
22:DA:1607:C:H4'	22:DA:1608:A:C8	2.17	0.79
22:DA:2094:A:O2'	22:DA:2095:A:C5'	2.29	0.79
22:DA:2519:U:C6	22:DA:2542:A:N6	2.50	0.79
26:DE:29:HIS:HA	26:DE:32:VAL:HG22	1.63	0.79
33:DL:98:ALA:O	33:DL:100:ILE:HG22	1.82	0.79
1:AA:654:G:H2'	1:AA:655:A:C8	2.16	0.79
1:AA:1234:C:C2'	1:AA:1235:U:H5'	2.12	0.79
22:BA:1064:C:H5'	30:BI:88:GLY:HA3	1.63	0.79
23:BB:57:A:O2'	23:BB:58:A:H5'	1.82	0.79
28:BG:86:LEU:HD12	28:BG:86:LEU:N	1.95	0.79
30:BI:53:PRO:HD2	30:BI:77:VAL:HG21	1.64	0.79
32:BK:51:LYS:HE3	32:BK:52:VAL:HG12	1.62	0.79
35:BN:33:ILE:HD12	35:BN:33:ILE:N	1.97	0.79
42:BU:73:ASN:HD22	42:BU:76:THR:H	1.30	0.79
53:CA:704:A:H2'	53:CA:705:G:C8	2.17	0.79
53:CA:1347:G:H22	53:CA:1373:G:H2'	1.47	0.79
22:DA:448:U:H5''	62:DA:3240:HOH:O	1.81	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1846:G:H5''	22:DA:1847:A:OP2	1.81	0.79
22:DA:2512:C:H2'	22:DA:2513:A:O4'	1.82	0.79
25:DD:30:GLU:HG2	25:DD:185:ASN:ND2	1.98	0.79
26:DE:139:LYS:HB2	26:DE:139:LYS:NZ	1.97	0.79
31:DJ:110:PRO:HG2	31:DJ:111:LYS:HG2	1.63	0.79
38:DQ:77:LYS:HE2	38:DQ:116:LEU:HD21	1.64	0.79
1:AA:246:A:H4'	1:AA:247:G:OP1	1.81	0.79
3:AC:25:THR:HG23	14:AN:75:LYS:HD3	1.65	0.79
3:AC:118:SER:O	3:AC:122:GLN:HG2	1.81	0.79
9:AI:23:GLY:H	9:AI:60:LEU:HA	1.46	0.79
11:AK:107:THR:HG22	11:AK:108:ASN:ND2	1.98	0.79
21:AU:10:PRO:O	21:AU:11:PHE:HB3	1.81	0.79
22:BA:529:A:H4'	22:BA:530:G:OP1	1.82	0.79
22:BA:1644:C:C2'	22:BA:1645:G:H5'	2.13	0.79
24:BC:94:LEU:HD13	24:BC:100:ARG:HD3	1.63	0.79
28:BG:84:LYS:N	28:BG:84:LYS:HE2	1.97	0.79
31:BJ:21:THR:HG22	31:BJ:22:GLY:H	1.45	0.79
31:BJ:88:THR:HG22	31:BJ:91:GLU:HB2	1.65	0.79
53:CA:327:A:O2'	53:CA:329:A:H5''	1.82	0.79
53:CA:1304:G:H1'	53:CA:1333:A:H61	1.46	0.79
53:CA:1520:C:H2'	53:CA:1521:C:H6	1.47	0.79
3:CC:76:ILE:HA	3:CC:83:VAL:HG13	1.65	0.79
10:CJ:26:VAL:O	10:CJ:30:LYS:HB3	1.82	0.79
14:CN:66:THR:HG23	14:CN:82:LYS:HE3	1.63	0.79
22:DA:79:C:H2'	22:DA:80:G:O4'	1.83	0.79
22:DA:1361:G:O2'	22:DA:1362:C:H5'	1.82	0.79
22:DA:1364:G:C8	45:DX:1:SER:HB2	2.17	0.79
22:DA:1915:U:C2'	22:DA:1916:A:H8	1.92	0.79
22:DA:2051:A:C4'	22:DA:2052:A:OP1	2.28	0.79
25:DD:4:LEU:HD12	25:DD:32:ASN:OD1	1.81	0.79
22:BA:527:C:H4'	22:BA:528:A:O5'	1.83	0.79
22:BA:855:G:N2	44:BW:23:LYS:HG2	1.95	0.79
22:BA:1257:C:H5'	26:BE:78:TRP:CZ3	2.18	0.79
22:BA:1935:G:H1'	22:BA:1964:G:N2	1.98	0.79
25:BD:107:VAL:HG13	25:BD:203:VAL:HG23	1.62	0.79
31:BJ:88:THR:HG22	31:BJ:91:GLU:CB	2.12	0.79
37:BP:63:ILE:HG22	37:BP:63:ILE:O	1.83	0.79
8:CH:65:PHE:CD2	8:CH:66:GLN:HG2	2.18	0.79
21:CU:39:LYS:H	21:CU:40:PRO:HD2	1.48	0.79
22:DA:1694:C:H4'	22:DA:1695:G:H5''	1.65	0.79
22:DA:2149:U:HO2'	22:DA:2150:C:H6	1.28	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2285:C:H2'	22:DA:2286:G:H5''	1.64	0.79
22:DA:2360:G:C1'	33:DL:60:ARG:HH21	1.96	0.79
1:AA:116:A:H2'	1:AA:117:G:C8	2.18	0.79
1:AA:409:U:OP1	4:AD:23:GLY:HA3	1.81	0.79
1:AA:414:A:H2'	1:AA:415:A:H8	1.48	0.79
1:AA:1343:G:H4'	9:AI:123:ARG:HB3	1.62	0.79
1:AA:1409:C:O2'	1:AA:1410:A:H5'	1.81	0.79
8:AH:21:LYS:HE2	8:AH:22:ALA:N	1.97	0.79
22:BA:2321:U:H3'	22:BA:2322:A:H5'	1.63	0.79
26:BE:108:ILE:HD11	26:BE:180:LEU:HB3	1.65	0.79
26:BE:147:LEU:HB3	26:BE:186:VAL:HG23	1.64	0.79
35:BN:8:ARG:HB3	35:BN:10:LEU:CD2	2.13	0.79
53:CA:1347:G:N2	53:CA:1373:G:H2'	1.98	0.79
4:CD:144:ILE:CD1	4:CD:154:VAL:HG21	2.13	0.79
22:DA:1080:A:HO2'	22:DA:1081:U:H6	1.29	0.79
22:DA:1204:A:H4'	22:DA:1205:A:C5'	2.12	0.79
22:DA:1326:U:HO2'	22:DA:1327:A:H8	1.29	0.79
22:DA:1489:C:H4'	22:DA:1490:A:OP1	1.83	0.79
22:DA:2771:C:H2'	22:DA:2772:C:H6	1.46	0.79
1:AA:1003:G:N2	1:AA:1005:A:H5'	1.97	0.79
4:AD:104:MET:HG2	4:AD:170:LEU:HD22	1.65	0.79
17:AQ:18:LYS:CA	17:AQ:47:ASP:HB2	2.10	0.79
22:BA:1867:G:O2'	22:BA:1868:C:H5'	1.83	0.79
46:BY:17:GLU:HG3	46:BY:18:LEU:N	1.96	0.79
53:CA:559:A:H4'	53:CA:560:A:O5'	1.80	0.79
22:DA:867:C:HO2'	22:DA:868:U:H6	0.83	0.79
22:DA:1116:G:N1	22:DA:1117:C:C4	2.51	0.79
22:DA:2068:U:H5''	22:DA:2068:U:H6	1.47	0.79
22:DA:2093:G:C6	22:DA:2225:A:N7	2.50	0.79
22:DA:2688:G:H1'	22:DA:2721:A:H61	1.46	0.79
29:DH:59:ALA:HA	29:DH:63:ALA:HB3	1.64	0.79
37:DP:105:LYS:HA	37:DP:108:ARG:NE	1.97	0.79
1:AA:107:G:H2'	1:AA:108:G:H5'	1.64	0.79
3:AC:131:ARG:O	3:AC:135:ARG:HG2	1.83	0.79
10:AJ:19:ASP:HA	10:AJ:22:THR:HB	1.65	0.79
10:AJ:65:TYR:CB	14:AN:95:LEU:HD11	2.12	0.79
16:AP:22:ALA:HA	16:AP:33:ILE:HG13	1.64	0.79
22:BA:2509:G:C3'	22:BA:2510:C:H5''	2.12	0.79
25:BD:151:THR:HG22	25:BD:152:PRO:HD3	1.62	0.79
30:BI:100:ILE:HG22	30:BI:101:SER:H	1.47	0.79
31:BJ:4:PHE:O	31:BJ:44:TYR:HE1	1.61	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:13:ARG:O	31:BJ:14:ASP:HB2	1.83	0.79
41:BT:31:VAL:HA	41:BT:83:ALA:HB3	1.64	0.79
53:CA:820:U:H4'	53:CA:821:G:OP2	1.79	0.79
2:CB:103:TRP:HA	2:CB:106:VAL:HB	1.63	0.79
56:CP:44:SER:H	56:CP:46:LYS:HZ3	1.28	0.79
22:DA:1231:U:H2'	22:DA:1232:G:C8	2.18	0.79
22:DA:1647:U:H5''	22:DA:1648:U:OP1	1.82	0.79
22:DA:2092:U:C4'	22:DA:2093:G:OP1	2.30	0.79
22:DA:2586:U:O2'	22:DA:2587:A:H5'	1.82	0.79
22:DA:2651:C:O2'	22:DA:2652:C:H5'	1.83	0.79
40:DS:24:ILE:HG22	40:DS:35:ILE:CD1	2.12	0.79
6:AF:6:ILE:HG12	6:AF:89:VAL:CG2	2.05	0.79
14:AN:15:LEU:HD23	14:AN:18:LYS:CD	2.13	0.79
22:BA:409:G:O2'	22:BA:410:G:H5'	1.82	0.79
22:BA:1498:C:O2'	22:BA:1499:C:H6	1.64	0.79
29:BH:117:LEU:HD11	29:BH:130:VAL:HG11	1.64	0.79
38:BQ:10:ARG:HB2	38:BQ:10:ARG:HH11	1.48	0.79
53:CA:1142:G:H2'	53:CA:1143:G:C8	2.18	0.79
53:CA:1328:C:H5''	55:CM:27:THR:HG21	1.65	0.79
22:DA:677:A:O2'	22:DA:2071:A:H5'	1.82	0.79
22:DA:1116:G:N2	22:DA:1117:C:N1	2.30	0.79
22:DA:2602:A:OP1	22:DA:2602:A:H3'	1.82	0.79
58:DF:41:GLU:HG2	58:DF:42:ALA:H	1.46	0.79
40:DS:86:MET:CE	40:DS:87:PRO:HD2	2.12	0.79
41:DT:48:GLN:HA	41:DT:48:GLN:HE21	1.48	0.79
12:AL:81:ILE:HD11	12:AL:94:TYR:CG	2.18	0.79
22:BA:74:A:H4'	22:BA:75:G:O5'	1.81	0.79
22:BA:303:G:H2'	22:BA:304:U:H6	1.48	0.79
22:BA:1937:A:H5''	62:BA:3459:HOH:O	1.83	0.79
26:BE:153:LEU:C	26:BE:153:LEU:HD12	2.08	0.79
29:BH:8:LYS:O	29:BH:13:GLY:HA3	1.83	0.79
44:BW:67:LYS:HB3	44:BW:80:SER:H	1.48	0.79
53:CA:15:G:H2'	53:CA:16:A:H8	1.48	0.79
53:CA:668:G:O2'	15:CO:45:HIS:HB3	1.83	0.79
11:CK:70:ALA:HA	11:CK:73:VAL:CG2	2.10	0.79
22:DA:170:U:H2'	22:DA:171:U:H6	1.46	0.79
22:DA:202:U:H3'	22:DA:203:A:C8	2.18	0.79
22:DA:2423:U:H5''	22:DA:2424:C:OP1	1.82	0.79
22:DA:2838:G:H1'	35:DN:45:ARG:NH2	1.98	0.79
24:DC:16:VAL:H	24:DC:203:VAL:HG12	1.46	0.79
35:DN:103:ARG:HB2	35:DN:110:MET:CG	2.12	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:91:ARG:HG3	39:DR:11:GLN:CD	2.07	0.79
3:AC:52:SER:HB2	3:AC:111:ASP:OD2	1.83	0.78
4:AD:109:THR:HG23	4:AD:112:GLU:N	1.97	0.78
7:AG:29:LEU:O	7:AG:29:LEU:HD23	1.82	0.78
10:AJ:57:VAL:HG22	10:AJ:58:ASN:H	1.45	0.78
22:BA:475:C:O2'	22:BA:476:G:H5'	1.83	0.78
22:BA:1657:U:O3'	25:BD:138:LEU:HD23	1.83	0.78
31:BJ:98:GLU:HB3	31:BJ:124:VAL:HG21	1.64	0.78
53:CA:1239:A:H5''	54:CG:118:ARG:HH12	1.48	0.78
22:DA:740:C:C5	22:DA:1981:A:C2	2.71	0.78
22:DA:857:G:H1'	44:DW:19:ARG:NE	1.98	0.78
22:DA:1441:G:H2'	22:DA:1442:U:H6	1.45	0.78
26:DE:110:SER:O	26:DE:113:VAL:HG12	1.83	0.78
22:BA:869:G:O2'	34:BM:8:LYS:HD3	1.82	0.78
22:BA:2509:G:C2'	22:BA:2510:C:H5''	2.13	0.78
32:BK:7:MET:C	32:BK:8:LEU:HD23	2.08	0.78
37:BP:80:VAL:O	37:BP:81:ASP:HB3	1.82	0.78
53:CA:254:G:O2'	53:CA:255:G:H5'	1.83	0.78
53:CA:752:G:H1'	53:CA:754:C:N4	1.98	0.78
22:DA:411:G:H4'	22:DA:412:A:OP1	1.83	0.78
22:DA:2311:A:H5'	22:DA:2312:U:C6	2.18	0.78
31:DJ:117:ALA:HA	31:DJ:120:ARG:HD2	1.64	0.78
38:DQ:64:ILE:HD12	38:DQ:95:ALA:HB1	1.64	0.78
1:AA:654:G:O2'	1:AA:655:A:H5'	1.82	0.78
22:BA:852:U:H2'	22:BA:853:C:C6	2.18	0.78
22:BA:1334:G:C2'	22:BA:1335:C:H5'	2.13	0.78
22:BA:2321:U:H3'	22:BA:2322:A:C5'	2.13	0.78
46:BY:5:GLU:O	46:BY:8:GLU:HB2	1.83	0.78
53:CA:953:G:C6	53:CA:1229:A:N6	2.52	0.78
22:DA:90:U:H3'	22:DA:91:A:H5''	1.65	0.78
22:DA:1049:C:O2'	22:DA:1050:A:H5'	1.83	0.78
22:DA:1116:G:C2	22:DA:1117:C:C4	2.71	0.78
22:DA:1511:G:O2'	22:DA:1512:C:H6	1.66	0.78
22:DA:1552:A:H2'	22:DA:1552:A:N3	1.98	0.78
22:DA:1799:G:H4'	22:DA:1800:C:O5'	1.83	0.78
22:DA:2529:G:H4'	28:DG:174:LYS:HD3	1.64	0.78
35:DN:90:ARG:HH21	35:DN:116:VAL:HG11	1.47	0.78
38:DQ:4:LYS:NZ	38:DQ:6:GLY:HA3	1.99	0.78
38:DQ:10:ARG:HA	38:DQ:13:HIS:HB2	1.65	0.78
6:AF:81:ASN:OD1	6:AF:83:ALA:HB3	1.83	0.78
9:AI:28:VAL:HB	9:AI:63:TYR:HD2	1.45	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1076:C:H2'	22:BA:1077:A:H8	1.48	0.78
22:BA:2888:C:H2'	22:BA:2889:C:H6	1.48	0.78
37:BP:50:ARG:HG2	37:BP:57:ALA:H	1.42	0.78
53:CA:330:C:O2'	53:CA:331:G:H8	1.65	0.78
2:CB:44:LYS:O	2:CB:48:MET:HG3	1.84	0.78
8:CH:68:LYS:HD3	8:CH:69:ALA:H	1.47	0.78
22:DA:587:C:H1'	22:DA:671:C:H5'	1.65	0.78
22:DA:1441:G:H2'	22:DA:1442:U:C6	2.19	0.78
22:DA:1590:A:H2'	22:DA:1591:A:C8	2.18	0.78
22:DA:2603:G:OP2	22:DA:2603:G:H4'	1.81	0.78
33:DL:17:LYS:HZ3	33:DL:19:LEU:HD22	1.46	0.78
43:DV:70:ILE:N	43:DV:70:ILE:HD13	1.99	0.78
49:D1:51:ALA:O	49:D1:52:LYS:HB2	1.82	0.78
1:AA:1103:C:H2'	1:AA:1104:G:O4'	1.84	0.78
8:AH:74:ILE:HD12	8:AH:128:VAL:HG22	1.63	0.78
22:BA:197:A:H62	22:BA:2430:A:H2'	1.46	0.78
22:BA:289:G:H2'	22:BA:290:U:O4'	1.83	0.78
22:BA:603:A:H4'	22:BA:604:G:O5'	1.81	0.78
22:BA:760:G:C2'	22:BA:761:A:H5'	2.13	0.78
22:BA:1277:G:H5'	35:BN:20:MET:CE	2.14	0.78
22:BA:1534:U:H5'	22:BA:1535:A:OP1	1.83	0.78
22:BA:2210:U:H4'	22:BA:2211:A:C5'	2.14	0.78
26:BE:79:ARG:HG2	26:BE:80:SER:N	1.99	0.78
28:BG:33:THR:C	28:BG:34:ARG:HD3	2.08	0.78
30:BI:33:ASN:HB3	30:BI:36:GLU:HB2	1.66	0.78
44:BW:77:LYS:O	44:BW:78:PHE:HB2	1.82	0.78
53:CA:1349:A:H2'	53:CA:1350:A:C8	2.17	0.78
53:CA:1387:G:H2'	53:CA:1388:C:H6	1.47	0.78
21:CU:33:ARG:NH1	21:CU:34:ARG:HD3	1.99	0.78
22:DA:639:U:H2'	22:DA:640:C:H6	1.49	0.78
22:DA:1635:A:H2'	22:DA:1636:U:H6	1.49	0.78
57:DB:57:A:C6	58:DF:25:MET:HG2	2.19	0.78
32:DK:111:LYS:HE3	32:DK:111:LYS:N	1.98	0.78
42:DU:14:THR:HG23	42:DU:15:GLY:H	1.48	0.78
1:AA:439:U:H2'	1:AA:440:C:C5'	2.14	0.78
1:AA:546:A:P	4:AD:68:GLU:HB2	2.23	0.78
1:AA:1111:A:O2'	1:AA:1112:C:H5'	1.82	0.78
22:BA:1032:A:H1'	52:B4:23:ILE:HD13	1.64	0.78
22:BA:1956:U:O2'	22:BA:1957:C:H5'	1.84	0.78
22:BA:2431:U:H6	22:BA:2431:U:C5'	1.91	0.78
22:BA:2502:G:H5'	22:BA:2503:A:C5'	2.14	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:131:VAL:CG2	27:BF:151:LEU:HG	2.14	0.78
31:BJ:31:GLU:HG3	31:BJ:142:ILE:HG21	1.65	0.78
33:BL:93:ASN:ND2	33:BL:94:THR:N	2.31	0.78
38:BQ:73:ILE:HD11	38:BQ:77:LYS:HB3	1.65	0.78
39:BR:25:LEU:H	39:BR:94:THR:HG23	1.48	0.78
44:BW:23:LYS:HE3	44:BW:24:ARG:HG3	1.65	0.78
44:BW:43:LYS:HE2	44:BW:68:PHE:CE1	2.18	0.78
2:CB:125:PHE:HD1	2:CB:137:THR:HG22	1.49	0.78
54:CG:107:ALA:O	54:CG:118:ARG:HB3	1.82	0.78
14:CN:87:ALA:HB2	14:CN:92:ILE:HD12	1.63	0.78
56:CP:4:ILE:HD12	56:CP:4:ILE:N	1.99	0.78
22:DA:991:C:O2'	22:DA:992:C:H5'	1.83	0.78
57:DB:17:C:H42	57:DB:68:C:H42	1.28	0.78
34:DM:7:THR:HG22	34:DM:9:PHE:H	1.46	0.78
39:DR:89:HIS:NE2	39:DR:91:GLN:HB2	1.99	0.78
42:DU:90:LYS:HE2	42:DU:92:VAL:HG12	1.64	0.78
47:DZ:18:LYS:O	47:DZ:22:THR:HG23	1.83	0.78
22:BA:480:A:OP2	42:BU:43:LYS:HD2	1.84	0.78
22:BA:794:A:H2'	22:BA:795:C:C6	2.19	0.78
24:BC:246:PRO:HG2	24:BC:247:TRP:CE3	2.17	0.78
28:BG:30:GLY:HA3	28:BG:78:VAL:HG12	1.65	0.78
28:BG:83:THR:CA	28:BG:84:LYS:HZ3	1.89	0.78
38:BQ:85:ALA:O	38:BQ:86:SER:C	2.25	0.78
53:CA:73:C:O2'	53:CA:74:A:H8	1.64	0.78
53:CA:522:C:H41	12:CL:49:ARG:HH22	1.30	0.78
21:CU:19:LYS:HZ3	21:CU:19:LYS:N	1.81	0.78
22:DA:2092:U:H4'	22:DA:2093:G:H5''	1.65	0.78
22:DA:2210:U:H4'	22:DA:2211:A:O5'	1.83	0.78
22:DA:2214:C:O2'	22:DA:2215:C:C5'	2.31	0.78
26:DE:130:LYS:CB	26:DE:133:LEU:HB3	2.13	0.78
42:DU:26:ASN:OD1	42:DU:34:ILE:HD12	1.82	0.78
1:AA:1239:A:H62	1:AA:1299:A:H62	1.29	0.78
5:AE:155:LYS:HD2	5:AE:156:ARG:H	1.48	0.78
11:AK:124:LYS:HE2	11:AK:124:LYS:C	2.09	0.78
22:BA:1188:U:O2'	22:BA:1189:A:H5'	1.84	0.78
22:BA:2311:A:H1'	27:BF:78:ILE:HD13	1.65	0.78
22:BA:2507:C:C3'	22:BA:2508:G:H5''	2.14	0.78
22:BA:2591:C:OP1	24:BC:237:ARG:HG3	1.83	0.78
24:BC:93:VAL:CG1	24:BC:94:LEU:H	1.97	0.78
31:BJ:37:ARG:HA	31:BJ:118:MET:HE1	1.65	0.78
36:BO:7:ARG:HA	36:BO:10:ARG:NH2	1.99	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:BQ:65:ASN:ND2	38:BQ:69:ARG:HH22	1.79	0.78
44:BW:18:LYS:N	44:BW:36:ILE:HG13	1.99	0.78
44:BW:47:GLY:C	44:BW:49:ASN:H	1.91	0.78
51:B3:56:LEU:H	51:B3:56:LEU:CD2	1.96	0.78
53:CA:665:A:H2'	53:CA:725:G:N2	1.99	0.78
4:CD:170:LEU:HA	4:CD:182:LYS:HB2	1.65	0.78
22:DA:1808:A:H62	45:DX:27:ARG:HH11	1.32	0.78
22:DA:2287:A:O2'	22:DA:2288:A:H3'	1.84	0.78
2:AB:22:TRP:O	2:AB:22:TRP:CG	2.37	0.78
4:AD:121:ALA:C	4:AD:122:ILE:HD13	2.08	0.78
9:AI:51:LEU:HB3	9:AI:56:MET:CG	2.14	0.78
22:BA:357:C:H2'	22:BA:358:U:H6	1.49	0.78
26:BE:110:SER:O	26:BE:113:VAL:HG12	1.83	0.78
33:BL:95:LEU:HD22	33:BL:100:ILE:CD1	2.13	0.78
38:BQ:6:GLY:HA2	38:BQ:9:ALA:HB3	1.66	0.78
38:BQ:10:ARG:HB2	38:BQ:10:ARG:NH1	1.98	0.78
38:BQ:40:LYS:HB2	38:BQ:40:LYS:HZ3	1.46	0.78
38:BQ:97:ILE:HD12	38:BQ:97:ILE:O	1.83	0.78
53:CA:369:G:OP2	53:CA:388:G:N2	2.15	0.78
53:CA:560:A:H5'	53:CA:566:G:N2	1.99	0.78
53:CA:987:G:N3	53:CA:988:G:C8	2.52	0.78
3:CC:129:PHE:CE1	3:CC:156:LEU:HB3	2.18	0.78
22:DA:127:A:N7	50:D2:46:LYS:HE3	1.99	0.78
22:DA:143:C:H2'	22:DA:144:A:C8	2.19	0.78
22:DA:617:G:O2'	22:DA:618:G:H8	1.67	0.78
22:DA:1080:A:O2'	22:DA:1081:U:H6	1.67	0.78
22:DA:1347:A:O2'	22:DA:1348:C:H5'	1.84	0.78
51:D3:18:LYS:CD	51:D3:19:GLY:H	1.96	0.78
18:AR:33:THR:HG21	18:AR:37:LYS:HB2	1.66	0.78
27:BF:151:LEU:HD12	27:BF:152:ASP:N	1.99	0.78
28:BG:22:VAL:HG22	28:BG:36:LEU:HD11	1.66	0.78
45:BX:30:PRO:HB2	45:BX:32:LEU:CD1	2.14	0.78
53:CA:366:A:O2'	53:CA:394:G:N2	2.17	0.78
22:DA:183:C:H2'	22:DA:184:C:H5'	1.66	0.78
22:DA:482:A:N6	22:DA:506:G:C4	2.51	0.78
22:DA:607:U:O4	22:DA:619:G:H2'	1.82	0.78
22:DA:616:A:H2'	22:DA:617:G:H8	1.48	0.78
22:DA:629:G:O2'	22:DA:630:G:H5'	1.84	0.78
22:DA:1455:G:HO2'	22:DA:1456:G:H8	1.31	0.78
22:DA:2339:C:O2'	22:DA:2340:A:H8	1.66	0.78
25:DD:107:VAL:HG21	25:DD:177:VAL:HG11	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:92:MET:HE2	31:DJ:92:MET:HA	1.65	0.78
37:DP:50:ARG:HA	37:DP:57:ALA:O	1.84	0.78
41:DT:29:THR:H	41:DT:87:LEU:CB	1.97	0.78
1:AA:116:A:H2'	1:AA:117:G:H8	1.48	0.77
1:AA:519:C:H2'	1:AA:520:A:C8	2.19	0.77
17:AQ:45:VAL:HG13	17:AQ:72:TRP:O	1.85	0.77
18:AR:33:THR:CG2	18:AR:37:LYS:HB2	2.14	0.77
21:AU:36:PHE:HA	21:AU:39:LYS:HE2	1.66	0.77
22:BA:284:U:H2'	22:BA:285:G:C8	2.18	0.77
22:BA:1664:A:H5''	22:BA:1665:A:OP2	1.83	0.77
22:BA:2887:A:H2'	22:BA:2887:A:N3	1.99	0.77
30:BI:3:LYS:HD2	30:BI:4:VAL:HG23	1.66	0.77
38:BQ:73:ILE:HD11	38:BQ:77:LYS:CB	2.12	0.77
53:CA:1239:A:H1'	53:CA:1241:G:C4	2.19	0.77
53:CA:1454:G:O2'	53:CA:1455:G:H5''	1.84	0.77
22:DA:508:A:H62	40:DS:9:HIS:CE1	2.02	0.77
22:DA:1439:A:N7	22:DA:1440:U:C1'	2.47	0.77
22:DA:2311:A:H1'	58:DF:78:ILE:HD11	1.67	0.77
28:DG:88:LEU:HD13	28:DG:93:TYR:HB3	1.65	0.77
29:DH:90:LEU:CB	29:DH:123:ARG:HB3	2.14	0.77
40:DS:66:ILE:HD13	40:DS:66:ILE:H	1.48	0.77
1:AA:279:A:H5''	1:AA:281:G:H5'	1.66	0.77
22:BA:620:G:H4'	22:BA:621:A:O5'	1.83	0.77
24:BC:251:THR:HG22	24:BC:252:LYS:N	1.99	0.77
26:BE:161:ALA:HA	26:BE:164:LEU:HB2	1.66	0.77
28:BG:22:VAL:HG22	28:BG:36:LEU:CD1	2.15	0.77
38:BQ:43:GLN:HE21	39:BR:77:PHE:HB3	1.47	0.77
38:BQ:86:SER:HB2	39:BR:50:GLY:O	1.83	0.77
40:BS:73:LYS:HE3	40:BS:73:LYS:CA	2.13	0.77
41:BT:40:LYS:H	41:BT:43:ILE:CG2	1.97	0.77
45:BX:76:LYS:HG3	45:BX:77:TYR:H	1.49	0.77
53:CA:654:G:H2'	53:CA:655:A:C8	2.20	0.77
53:CA:920:U:H2'	53:CA:921:U:C6	2.19	0.77
53:CA:1450:U:H4'	53:CA:1451:U:C5	2.19	0.77
56:CP:48:GLU:HG3	56:CP:51:ARG:HH21	1.49	0.77
17:CQ:18:LYS:HD3	17:CQ:48:GLU:OE2	1.84	0.77
22:DA:338:G:C2'	22:DA:339:U:H5'	2.13	0.77
22:DA:511:U:H4'	22:DA:1235:G:H4'	1.63	0.77
22:DA:1998:A:H2'	22:DA:1999:C:H6	1.47	0.77
22:DA:2199:A:O2'	22:DA:2200:C:H5'	1.84	0.77
34:DM:19:GLY:H	34:DM:38:ARG:NH2	1.81	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BI:104:GLN:O	30:BI:105:LEU:HB2	1.84	0.77
53:CA:79:G:H2'	53:CA:80:A:C8	2.19	0.77
53:CA:177:G:O2'	53:CA:1448:C:H5''	1.83	0.77
53:CA:519:C:O2'	53:CA:520:A:C5'	2.31	0.77
10:CJ:5:ARG:C	10:CJ:6:ILE:HD12	2.10	0.77
22:DA:996:A:C4'	38:DQ:91:ARG:HD2	2.12	0.77
22:DA:1204:A:H4'	22:DA:1205:A:O5'	1.82	0.77
22:DA:1847:A:HO2'	22:DA:1848:A:H8	1.32	0.77
29:DH:6:LEU:HD13	29:DH:36:ALA:HA	1.66	0.77
3:AC:54:ILE:C	3:AC:54:ILE:HD12	2.09	0.77
4:AD:117:VAL:HA	4:AD:122:ILE:HD11	1.66	0.77
22:BA:528:A:H8	22:BA:528:A:C5'	1.97	0.77
22:BA:1063:G:H2'	22:BA:1064:C:H6	1.49	0.77
22:BA:1079:C:C4	22:BA:1088:A:H2	2.01	0.77
32:BK:101:GLY:O	32:BK:120:PRO:HD2	1.83	0.77
52:B4:9:LYS:C	52:B4:10:LEU:HD23	2.09	0.77
53:CA:212:G:O2'	53:CA:213:G:H5''	1.85	0.77
53:CA:818:G:C3'	53:CA:819:A:H5'	2.14	0.77
53:CA:986:U:C2'	53:CA:987:G:H5'	2.14	0.77
53:CA:1493:A:H8	22:DA:1913:A:N6	1.82	0.77
54:CG:59:GLU:HG3	54:CG:60:ALA:N	1.99	0.77
10:CJ:64:GLN:HB2	14:CN:98:ALA:CB	2.13	0.77
56:CP:5:ARG:HA	56:CP:71:VAL:HG11	1.66	0.77
22:DA:1309:G:OP1	50:D2:9:VAL:HG12	1.85	0.77
22:DA:1537:G:O2'	22:DA:1538:G:H4'	1.84	0.77
24:DC:145:MET:HE3	24:DC:181:ARG:NH2	1.99	0.77
25:DD:36:GLN:HG3	25:DD:38:LYS:NZ	1.99	0.77
26:DE:47:LYS:CB	26:DE:51:GLU:HB2	2.14	0.77
58:DF:12:VAL:HA	58:DF:15:LEU:HB2	1.67	0.77
58:DF:49:LEU:HD22	58:DF:49:LEU:H	1.47	0.77
41:DT:69:ARG:O	41:DT:74:ILE:HD12	1.83	0.77
1:AA:1184:G:O2'	1:AA:1185:G:H5'	1.84	0.77
4:AD:10:LEU:HD22	4:AD:62:ARG:HG3	1.65	0.77
4:AD:61:ARG:NH2	4:AD:67:LEU:HD23	1.98	0.77
22:BA:704:G:O2'	22:BA:726:G:N2	2.17	0.77
22:BA:1486:U:H2'	22:BA:1487:U:H6	1.48	0.77
40:BS:4:ILE:HG21	40:BS:106:VAL:HG22	1.66	0.77
43:BV:2:PHE:CD1	43:BV:50:MET:HE2	2.20	0.77
3:CC:148:ILE:HD13	3:CC:201:ILE:CD1	2.14	0.77
22:DA:614:A:C4'	22:DA:616:A:H62	1.98	0.77
25:DD:122:VAL:HA	25:DD:127:PHE:H	1.48	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:149:ILE:HG23	26:DE:188:MET:HA	1.66	0.77
31:DJ:111:LYS:HB2	31:DJ:115:GLY:N	2.00	0.77
32:DK:13:ASN:HD21	32:DK:97:THR:H	1.31	0.77
1:AA:513:C:H2'	1:AA:514:C:C6	2.20	0.77
1:AA:684:U:H1'	11:AK:39:ASN:O	1.85	0.77
7:AG:143:MET:HA	7:AG:143:MET:CE	2.15	0.77
24:BC:104:LEU:O	24:BC:105:ALA:HB2	1.83	0.77
29:BH:68:ARG:HH22	29:BH:72:ILE:HG21	1.48	0.77
37:BP:80:VAL:HG12	37:BP:81:ASP:N	2.00	0.77
38:BQ:85:ALA:O	38:BQ:88:GLU:HB2	1.83	0.77
44:BW:22:VAL:O	44:BW:25:PHE:HD2	1.67	0.77
53:CA:642:A:C8	8:CH:106:SER:HA	2.20	0.77
53:CA:844:G:O2'	53:CA:845:A:H5''	1.85	0.77
3:CC:190:THR:HG22	3:CC:191:THR:N	1.99	0.77
5:CE:80:LEU:N	5:CE:121:ASN:HD21	1.83	0.77
5:CE:80:LEU:HD13	5:CE:80:LEU:O	1.85	0.77
54:CG:28:ILE:HG21	54:CG:100:MET:HG3	1.66	0.77
8:CH:17:GLN:NE2	8:CH:71:VAL:HG23	2.00	0.77
21:CU:39:LYS:N	21:CU:40:PRO:CD	2.45	0.77
22:DA:959:A:C2'	22:DA:960:A:C8	2.68	0.77
57:DB:88:C:OP2	57:DB:88:C:H3'	1.84	0.77
25:DD:151:THR:HG22	25:DD:152:PRO:HD3	1.64	0.77
32:DK:2:ILE:O	32:DK:3:GLN:HG2	1.83	0.77
33:DL:73:ILE:O	33:DL:105:ILE:HG23	1.85	0.77
40:DS:27:LYS:O	40:DS:71:VAL:HG12	1.84	0.77
41:DT:5:GLU:OE2	46:DY:18:LEU:HD21	1.84	0.77
5:AE:148:SER:O	5:AE:152:VAL:CG1	2.33	0.77
9:AI:34:LEU:HD11	9:AI:47:VAL:HG21	1.67	0.77
22:BA:900:A:H2'	22:BA:901:C:H5'	0.77	0.77
22:BA:1339:G:H21	22:BA:1603:A:H1'	1.49	0.77
22:BA:1682:G:H2'	22:BA:1683:U:H6	1.45	0.77
53:CA:511:C:O2'	53:CA:512:U:H5''	1.83	0.77
53:CA:765:G:C8	53:CA:812:G:C2	2.73	0.77
53:CA:969:A:O2'	53:CA:970:C:H5'	1.85	0.77
2:CB:95:TRP:HZ2	2:CB:100:LEU:HD13	1.49	0.77
22:DA:1799:G:H8	24:DC:179:GLU:OE1	1.67	0.77
22:DA:2392:A:C8	22:DA:2429:G:C2	2.73	0.77
22:DA:2800:A:C2'	22:DA:2801:G:H4'	2.15	0.77
24:DC:255:LYS:C	24:DC:256:THR:HG23	2.08	0.77
36:DO:13:ARG:O	36:DO:17:LYS:HB2	1.83	0.77
38:DQ:60:TRP:CZ2	38:DQ:93:ILE:HB	2.20	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:701:U:O2	1:AA:701:U:H2'	1.83	0.77
2:AB:9:LEU:CD1	2:AB:42:LEU:HD13	2.12	0.77
14:AN:13:VAL:HA	14:AN:59:GLN:OE1	1.84	0.77
28:BG:96:ALA:HB3	28:BG:103:ASN:HB3	1.67	0.77
28:BG:162:ARG:CZ	28:BG:168:VAL:HG21	2.14	0.77
46:BY:9:LYS:HA	46:BY:9:LYS:HZ1	1.45	0.77
53:CA:456:A:H2'	53:CA:457:G:H8	1.50	0.77
53:CA:1382:C:O2'	53:CA:1383:C:H5'	1.84	0.77
8:CH:74:ILE:HG13	8:CH:128:VAL:HG13	1.66	0.77
11:CK:51:PHE:O	11:CK:52:ARG:HD2	1.84	0.77
55:CM:13:HIS:HB3	55:CM:16:ILE:HB	1.67	0.77
22:DA:1751:U:H2'	22:DA:1752:C:H6	1.48	0.77
22:DA:2215:C:HO2'	22:DA:2216:G:H8	1.31	0.77
22:DA:2331:G:C1'	44:DW:40:ARG:HB3	2.13	0.77
22:DA:2847:U:C2'	22:DA:2848:G:H5'	2.15	0.77
57:DB:111:U:O2'	57:DB:112:G:C8	2.38	0.77
31:DJ:23:LYS:HB3	31:DJ:28:LEU:HD13	1.66	0.77
2:AB:75:ALA:O	2:AB:79:VAL:HG23	1.85	0.77
4:AD:62:ARG:NE	4:AD:62:ARG:HA	1.98	0.77
17:AQ:45:VAL:CG2	17:AQ:60:ILE:HD13	2.15	0.77
22:BA:276:U:O2'	22:BA:278:A:N7	2.18	0.77
27:BF:114:ARG:HD2	27:BF:114:ARG:N	2.00	0.77
49:B1:16:THR:CB	49:B1:41:VAL:HG21	2.14	0.77
53:CA:976:G:H5'	53:CA:977:A:OP2	1.85	0.77
22:DA:484:C:O2'	22:DA:485:C:H6	1.68	0.77
22:DA:1739:A:H2'	22:DA:1740:G:C8	2.20	0.77
1:AA:202:G:N2	1:AA:466:A:H61	1.83	0.77
20:AT:8:LYS:HA	20:AT:11:ILE:CG2	2.14	0.77
22:BA:434:U:H4'	22:BA:435:C:OP1	1.85	0.77
22:BA:443:A:C5	26:BE:40:ARG:HD3	2.20	0.77
22:BA:1386:C:H2'	22:BA:1387:A:C8	2.20	0.77
24:BC:106:PRO:HA	24:BC:141:HIS:CE1	2.20	0.77
27:BF:131:VAL:HG21	27:BF:151:LEU:HG	1.67	0.77
28:BG:23:ILE:HD12	28:BG:23:ILE:N	2.00	0.77
32:BK:19:VAL:HG22	32:BK:41:ILE:HG13	1.67	0.77
53:CA:1127:G:O2'	53:CA:1128:C:H5'	1.84	0.77
5:CE:103:GLY:HA3	5:CE:121:ASN:HA	1.66	0.77
6:CF:18:VAL:O	6:CF:22:ILE:HG12	1.84	0.77
10:CJ:51:VAL:HB	14:CN:80:ARG:HB2	1.67	0.77
11:CK:27:ASN:HD22	11:CK:27:ASN:H	1.32	0.77
22:DA:95:A:H2'	22:DA:96:C:H5''	1.66	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:391:A:O2'	22:DA:392:U:H5'	1.85	0.77
22:DA:1812:U:H2'	22:DA:1813:G:C8	2.19	0.77
22:DA:2291:U:H2'	22:DA:2292:U:H6	1.48	0.77
34:DM:36:VAL:HG13	43:DV:82:TYR:CD1	2.20	0.77
42:DU:92:VAL:HB	42:DU:101:THR:HG21	1.67	0.77
1:AA:1202:U:O2'	1:AA:1203:C:C5'	2.32	0.76
1:AA:1215:G:O2'	1:AA:1216:A:H5'	1.85	0.76
1:AA:1324:A:O2'	1:AA:1325:C:H6	1.68	0.76
1:AA:1361:G:C2'	1:AA:1362:A:H5'	2.15	0.76
17:AQ:22:VAL:HG21	17:AQ:60:ILE:CD1	2.15	0.76
22:BA:1993:U:H4'	25:BD:133:THR:CG2	2.15	0.76
22:BA:2146:C:H4'	22:BA:2147:A:O5'	1.84	0.76
22:BA:2585:U:O2'	22:BA:2586:U:C5'	2.33	0.76
25:BD:151:THR:CG2	25:BD:152:PRO:HD3	2.16	0.76
41:BT:39:THR:O	41:BT:40:LYS:HB2	1.84	0.76
53:CA:1387:G:H2'	53:CA:1388:C:C6	2.20	0.76
6:CF:11:HIS:HD2	6:CF:54:LEU:HD21	1.47	0.76
22:DA:502:A:H5'	22:DA:503:A:OP2	1.85	0.76
22:DA:781:A:H5''	22:DA:782:A:OP1	1.85	0.76
24:DC:15:VAL:HG22	24:DC:205:GLY:HA3	1.67	0.76
28:DG:48:THR:O	28:DG:49:LEU:HB2	1.86	0.76
31:DJ:45:THR:HG21	31:DJ:50:THR:CG2	2.15	0.76
35:DN:54:LEU:HD11	35:DN:66:ALA:HB2	1.66	0.76
37:DP:50:ARG:CB	37:DP:57:ALA:H	1.98	0.76
4:AD:117:VAL:CA	4:AD:122:ILE:HD11	2.15	0.76
5:AE:114:LEU:HD21	5:AE:122:VAL:HG21	1.67	0.76
7:AG:99:ALA:O	7:AG:103:ILE:HG13	1.85	0.76
10:AJ:74:VAL:HG12	10:AJ:75:ASP:N	1.97	0.76
22:BA:65:U:H2'	22:BA:66:C:C6	2.20	0.76
22:BA:1676:A:C2	22:BA:1993:U:H5'	2.20	0.76
34:BM:23:GLY:O	34:BM:101:VAL:HG12	1.85	0.76
41:BT:32:LEU:HD23	41:BT:32:LEU:N	1.99	0.76
49:B1:47:ILE:HD12	49:B1:47:ILE:H	1.50	0.76
2:CB:150:ILE:HD11	2:CB:153:MET:CE	2.14	0.76
22:DA:329:G:O6	42:DU:16:LYS:HB2	1.84	0.76
22:DA:684:G:H5'	50:D2:16:HIS:CE1	2.20	0.76
22:DA:724:U:H2'	22:DA:725:G:O4'	1.85	0.76
22:DA:740:C:C6	22:DA:1981:A:C2	2.73	0.76
22:DA:1056:G:C1'	22:DA:1103:A:H61	1.98	0.76
22:DA:1635:A:H2'	22:DA:1636:U:C6	2.20	0.76
22:DA:2829:A:H2'	22:DA:2830:C:H5'	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:112:VAL:HG13	28:DG:150:TYR:CE1	2.20	0.76
33:DL:73:ILE:O	33:DL:105:ILE:HA	1.85	0.76
1:AA:414:A:O2'	1:AA:415:A:H5'	1.85	0.76
4:AD:145:ARG:NH1	4:AD:147:LYS:HE3	1.99	0.76
5:AE:80:LEU:CD1	5:AE:146:MET:HE1	2.14	0.76
28:BG:148:ARG:HD2	28:BG:163:TYR:CE2	2.21	0.76
41:BT:32:LEU:N	41:BT:83:ALA:HB3	2.00	0.76
44:BW:40:ARG:H	44:BW:56:HIS:HB3	1.49	0.76
53:CA:1148:U:O2'	53:CA:1149:C:C5'	2.33	0.76
5:CE:95:MET:HB3	5:CE:124:ALA:HB2	1.66	0.76
56:CP:41:PRO:O	56:CP:42:ILE:HD13	1.84	0.76
22:DA:1307:A:O2'	22:DA:1308:A:H5'	1.86	0.76
22:DA:2666:C:H2'	22:DA:2667:C:H5'	1.65	0.76
24:DC:255:LYS:O	24:DC:256:THR:HG23	1.84	0.76
25:DD:51:THR:HG23	25:DD:76:GLY:HA3	1.66	0.76
25:DD:119:ALA:CB	25:DD:163:GLY:H	1.98	0.76
58:DF:76:PHE:HD2	58:DF:76:PHE:H	1.33	0.76
37:DP:88:ARG:HH11	37:DP:112:ARG:NH2	1.84	0.76
1:AA:198:G:N2	1:AA:220:G:H1'	2.00	0.76
1:AA:386:C:H2'	1:AA:387:U:H5'	1.67	0.76
2:AB:66:ILE:HB	2:AB:88:GLN:CB	2.13	0.76
2:AB:162:VAL:HG22	2:AB:184:ALA:HB2	1.66	0.76
20:AT:53:MET:HE1	20:AT:57:VAL:HG21	1.67	0.76
22:BA:1182:G:H2'	22:BA:1183:U:O4'	1.86	0.76
32:BK:2:ILE:HG21	32:BK:39:ILE:HD12	1.66	0.76
49:B1:27:ARG:O	49:B1:30:PRO:HD3	1.85	0.76
22:DA:686:U:O4	50:D2:12:ARG:HG3	1.84	0.76
22:DA:1207:C:O2'	22:DA:1208:C:H6	1.67	0.76
22:DA:2714:G:O2'	22:DA:2715:C:H5'	1.85	0.76
28:DG:162:ARG:H	28:DG:162:ARG:HD2	1.50	0.76
29:DH:12:LEU:HD12	29:DH:12:LEU:O	1.86	0.76
31:DJ:2:LYS:HB2	31:DJ:2:LYS:NZ	2.00	0.76
42:DU:81:ARG:HD2	42:DU:81:ARG:N	2.00	0.76
1:AA:263:A:H2'	1:AA:264:C:C5	2.20	0.76
2:AB:108:GLN:HG2	2:AB:109:SER:N	1.98	0.76
8:AH:88:LYS:HG3	8:AH:89:ASP:N	1.99	0.76
22:BA:1698:A:H4'	22:BA:1699:G:O5'	1.84	0.76
22:BA:1833:C:H2'	22:BA:1834:U:H6	1.49	0.76
28:BG:115:GLN:CD	28:BG:115:GLN:N	2.42	0.76
33:BL:78:ARG:HB3	33:BL:113:ALA:CB	2.15	0.76
4:CD:29:THR:C	4:CD:30:LYS:HD3	2.09	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:70:G:O2'	22:DA:71:A:C5'	2.34	0.76
22:DA:241:A:H1'	22:DA:243:U:C5	2.19	0.76
22:DA:727:A:H2'	22:DA:728:G:C8	2.20	0.76
22:DA:2807:U:C3'	22:DA:2808:G:H5''	2.15	0.76
25:DD:202:ILE:HD12	25:DD:202:ILE:N	1.99	0.76
58:DF:65:LEU:HD23	58:DF:65:LEU:H	1.51	0.76
34:DM:19:GLY:H	34:DM:38:ARG:HH21	1.32	0.76
35:DN:35:LYS:HZ2	35:DN:112:TYR:HE1	1.31	0.76
40:DS:1:MET:HE2	40:DS:1:MET:N	2.01	0.76
1:AA:1202:U:H2'	1:AA:1203:C:C6	2.21	0.76
5:AE:120:HIS:O	5:AE:121:ASN:HB3	1.84	0.76
22:BA:1061:U:H3'	22:BA:1062:G:H5''	1.68	0.76
22:BA:2134:A:O2'	22:BA:2135:A:H5''	1.86	0.76
22:BA:2180:U:H2'	22:BA:2181:U:H5	1.51	0.76
22:BA:2275:C:O2'	34:BM:84:LYS:HA	1.86	0.76
19:CS:35:ARG:HA	19:CS:70:LEU:HB2	1.68	0.76
22:DA:454:A:H4'	22:DA:455:C:OP2	1.86	0.76
22:DA:806:C:H2'	22:DA:807:U:C6	2.21	0.76
22:DA:1064:C:O2'	22:DA:1065:U:H5'	1.86	0.76
22:DA:1790:C:O2'	24:DC:207:ALA:HB2	1.84	0.76
31:DJ:106:LYS:HB2	31:DJ:119:PHE:HE2	1.49	0.76
33:DL:62:PRO:O	51:D3:12:ARG:HB3	1.84	0.76
40:DS:7:HIS:CE1	40:DS:10:ALA:HA	2.21	0.76
41:DT:1:MET:HG2	41:DT:4:GLU:HA	1.68	0.76
2:AB:209:VAL:HG23	2:AB:210:THR:H	1.51	0.76
5:AE:105:ILE:HD11	5:AE:123:LEU:HD23	1.68	0.76
22:BA:272:A:O2'	22:BA:273:G:H8	1.68	0.76
22:BA:1157:G:O2'	22:BA:1158:C:H5'	1.86	0.76
22:BA:2572:A:N7	25:BD:150:GLN:HB3	2.00	0.76
27:BF:151:LEU:HD12	27:BF:151:LEU:C	2.09	0.76
53:CA:1533:C:H2'	53:CA:1534:A:H5''	1.65	0.76
22:DA:379:G:C6	22:DA:396:G:O6	2.39	0.76
24:DC:173:LEU:HD22	24:DC:181:ARG:O	1.85	0.76
14:AN:46:LYS:HD2	19:AS:12:LEU:HD21	1.68	0.76
16:AP:19:VAL:HG13	16:AP:37:GLY:C	2.11	0.76
22:BA:558:U:OP1	31:BJ:111:LYS:HE3	1.86	0.76
22:BA:994:C:H3'	38:BQ:53:LYS:HE2	1.66	0.76
22:BA:2231:U:C2'	22:BA:2232:C:H5'	2.16	0.76
30:BI:7:TYR:HB3	30:BI:58:ILE:H	1.50	0.76
40:BS:24:ILE:HD12	40:BS:32:ALA:HA	1.66	0.76
3:CC:18:ASN:HD21	3:CC:53:ARG:NH1	1.84	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:115:GLN:HE22	4:CD:153:ARG:NH2	1.84	0.76
17:CQ:45:VAL:HG11	17:CQ:60:ILE:CG2	2.16	0.76
22:DA:92:U:H2'	22:DA:93:G:O4'	1.86	0.76
22:DA:140:C:H5'	22:DA:141:G:N2	2.01	0.76
22:DA:794:A:H2'	22:DA:795:C:C6	2.20	0.76
22:DA:2430:A:H5'	22:DA:2431:U:OP2	1.85	0.76
22:DA:2716:C:O2'	22:DA:2717:C:H5'	1.84	0.76
1:AA:386:C:C2'	1:AA:387:U:H5'	2.14	0.76
1:AA:475:C:H2'	1:AA:476:U:H6	1.50	0.76
1:AA:1277:C:O2'	1:AA:1279:G:H8	1.66	0.76
1:AA:1285:A:H5'	1:AA:1286:U:O4	1.86	0.76
2:AB:110:ILE:HD11	2:AB:147:LEU:CD1	2.12	0.76
8:AH:28:SER:HB2	8:AH:58:LEU:HB2	1.68	0.76
22:BA:1254:A:H5''	22:BA:1255:U:H5''	1.67	0.76
22:BA:1936:A:H2	22:BA:1943:U:C5	2.04	0.76
24:BC:28:PRO:HG2	24:BC:33:LEU:HD11	1.68	0.76
27:BF:72:SER:HB2	27:BF:80:GLN:HB2	1.66	0.76
53:CA:413:G:C2	4:CD:32:LYS:HE3	2.21	0.76
53:CA:748:G:H2'	53:CA:749:A:C8	2.21	0.76
53:CA:1067:A:H1'	53:CA:1068:G:C8	2.19	0.76
4:CD:34:GLU:O	4:CD:36:ALA:N	2.18	0.76
54:CG:117:LEU:HA	54:CG:121:ASN:HB2	1.66	0.76
17:CQ:4:ILE:HG22	17:CQ:5:ARG:H	1.51	0.76
22:DA:2447:G:C8	22:DA:2500:U:H2'	2.21	0.76
22:DA:2726:A:O2'	32:DK:67:LYS:NZ	2.18	0.76
29:DH:61:VAL:HG13	29:DH:62:LEU:HG	1.66	0.76
34:DM:34:LYS:HB3	34:DM:129:THR:HG22	1.66	0.76
1:AA:1317:C:H2'	1:AA:1318:A:H5'	1.68	0.76
20:AT:68:LYS:HB2	20:AT:68:LYS:NZ	2.01	0.76
22:BA:195:A:N7	62:BA:3750:HOH:O	2.18	0.76
22:BA:588:U:H1'	26:BE:85:PHE:CD1	2.21	0.76
22:BA:1450:G:C6	22:BA:1451:C:N4	2.54	0.76
22:BA:1839:G:H2'	22:BA:1840:G:H8	1.48	0.76
22:BA:2820:A:H3'	22:BA:2820:A:C8	2.20	0.76
25:BD:91:THR:O	25:BD:93:GLY:N	2.18	0.76
31:BJ:43:GLU:O	31:BJ:45:THR:CG2	2.34	0.76
31:BJ:74:TYR:HB2	31:BJ:87:ALA:O	1.86	0.76
32:BK:1:MET:HE2	32:BK:32:TYR:CD1	2.20	0.76
42:BU:97:SER:O	42:BU:98:ASN:HB3	1.84	0.76
53:CA:801:U:H2'	53:CA:802:A:H8	1.51	0.76
53:CA:1380:U:H4'	53:CA:1381:U:OP1	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:85:G:O2'	22:DA:86:G:H5''	1.85	0.76
22:DA:1655:A:H2'	22:DA:1656:C:H6	1.50	0.76
22:DA:1739:A:H2'	22:DA:1740:G:H8	1.51	0.76
22:DA:2360:G:H1'	33:DL:60:ARG:NH2	2.01	0.76
22:DA:2868:A:H2'	22:DA:2869:G:C8	2.21	0.76
25:DD:38:LYS:NZ	25:DD:38:LYS:HB3	2.00	0.76
25:DD:148:GLN:HG2	25:DD:152:PRO:HG2	1.68	0.76
29:DH:90:LEU:HB3	29:DH:123:ARG:HD2	1.67	0.76
30:DI:51:GLY:O	30:DI:52:LEU:HB2	1.86	0.76
47:DZ:30:ARG:HH21	47:DZ:33:HIS:HB2	1.51	0.76
50:D2:19:ARG:HB3	50:D2:19:ARG:HH21	1.50	0.76
1:AA:1507:A:O2'	1:AA:1508:A:H5'	1.85	0.75
3:AC:154:GLY:O	3:AC:195:ILE:HG12	1.85	0.75
4:AD:106:PHE:CD1	4:AD:144:ILE:HD11	2.20	0.75
22:BA:1110:G:O2'	22:BA:1111:A:H8	1.68	0.75
23:BB:89:U:H3'	23:BB:90:C:H5''	1.68	0.75
52:B4:36:ARG:HG2	52:B4:37:GLN:N	1.99	0.75
53:CA:1051:C:O2'	53:CA:1052:U:O5'	2.04	0.75
53:CA:1186:G:H4'	9:CI:111:GLU:CD	2.11	0.75
5:CE:79:THR:HA	5:CE:121:ASN:CG	2.11	0.75
17:CQ:61:ARG:HG2	17:CQ:75:VAL:CG1	2.16	0.75
22:DA:206:U:HO2'	22:DA:207:A:H8	1.32	0.75
22:DA:381:G:H5''	45:DX:15:ASN:HD22	1.50	0.75
22:DA:404:A:H5'	22:DA:405:U:OP1	1.85	0.75
22:DA:1213:A:O2'	22:DA:1214:A:H5'	1.85	0.75
22:DA:1394:U:H4'	22:DA:1603:A:H4'	1.68	0.75
58:DF:113:PHE:CE2	58:DF:116:LEU:HD22	2.21	0.75
35:DN:5:LYS:HG2	35:DN:6:SER:H	1.49	0.75
38:DQ:34:ALA:O	38:DQ:38:VAL:HG23	1.86	0.75
42:DU:10:VAL:HG12	42:DU:71:ILE:HA	1.68	0.75
2:AB:53:LEU:HA	2:AB:56:LEU:HB3	1.66	0.75
22:BA:2356:U:H4'	44:BW:16:GLU:HG3	1.66	0.75
28:BG:72:ASN:C	28:BG:72:ASN:HD22	1.94	0.75
43:BV:29:ILE:HG12	43:BV:30:ILE:H	1.51	0.75
53:CA:120:A:H3'	53:CA:121:U:H5''	1.67	0.75
8:CH:1:SER:CB	8:CH:3:GLN:HG3	2.16	0.75
22:DA:740:C:C5'	22:DA:1784:A:H3'	2.17	0.75
22:DA:1742:U:H2'	22:DA:1743:G:H8	1.50	0.75
32:DK:69:VAL:HG11	32:DK:106:GLU:HG2	1.68	0.75
41:DT:6:ARG:O	41:DT:9:LYS:HD2	1.85	0.75
44:DW:20:LEU:HD11	44:DW:35:ILE:HG13	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:81:ILE:C	44:DW:81:ILE:HD12	2.11	0.75
1:AA:250:A:H4'	1:AA:251:G:O5'	1.86	0.75
1:AA:725:G:O2'	1:AA:726:C:H5'	1.86	0.75
19:AS:51:HIS:CD2	19:AS:53:GLY:H	2.04	0.75
20:AT:26:MET:CE	20:AT:56:ILE:HD11	2.15	0.75
22:BA:84:A:N6	22:BA:101:A:H2	1.80	0.75
22:BA:751:A:C5'	22:BA:752:A:OP1	2.30	0.75
22:BA:933:A:H2'	22:BA:933:A:N3	2.00	0.75
22:BA:2214:C:H2'	22:BA:2215:C:C6	2.22	0.75
38:BQ:63:ARG:HD2	38:BQ:64:ILE:N	2.01	0.75
41:BT:50:LEU:H	41:BT:50:LEU:HD12	1.52	0.75
53:CA:784:A:H2'	53:CA:785:G:C8	2.21	0.75
54:CG:4:ARG:HD2	54:CG:5:VAL:H	1.49	0.75
22:DA:249:C:O2	22:DA:249:C:H2'	1.86	0.75
22:DA:600:G:C5'	26:DE:27:LEU:HD22	2.16	0.75
22:DA:1364:G:N7	45:DX:1:SER:HB2	2.02	0.75
22:DA:1492:G:C3'	22:DA:1493:C:C5'	2.62	0.75
22:DA:1962:C:H4'	22:DA:1963:U:OP1	1.86	0.75
22:DA:2321:U:O2	22:DA:2321:U:C3'	2.33	0.75
57:DB:83:G:OP1	47:DZ:16:LEU:HD21	1.86	0.75
26:DE:134:LEU:HA	26:DE:137:LYS:CB	2.17	0.75
58:DF:49:LEU:HA	58:DF:52:ALA:HB3	1.67	0.75
30:DI:106:GLN:HA	30:DI:109:ALA:HB3	1.68	0.75
34:DM:35:ALA:HB3	34:DM:99:GLY:N	2.01	0.75
38:DQ:24:TYR:O	38:DQ:27:ARG:HB3	1.86	0.75
38:DQ:91:ARG:HH11	39:DR:10:LYS:HB3	1.49	0.75
40:DS:25:ARG:HG3	40:DS:74:ILE:HG22	1.67	0.75
41:DT:25:GLU:OE1	41:DT:30:ILE:HD13	1.87	0.75
42:DU:3:LYS:HG2	42:DU:84:PHE:CZ	2.21	0.75
46:DY:4:LYS:HD3	46:DY:4:LYS:H	1.51	0.75
47:DZ:16:LEU:HD23	47:DZ:19:HIS:CD2	2.22	0.75
1:AA:996:A:C2	1:AA:1046:A:H5'	2.22	0.75
6:AF:5:GLU:HG3	6:AF:63:ASN:OD1	1.86	0.75
15:AO:73:ASP:CG	15:AO:76:ARG:HG3	2.12	0.75
22:BA:1248:G:OP2	26:BE:44:ARG:NH1	2.19	0.75
22:BA:1565:C:O2'	22:BA:1566:A:H2'	1.86	0.75
23:BB:66:A:H4'	23:BB:67:G:OP1	1.84	0.75
36:BO:31:THR:HG22	36:BO:34:HIS:N	2.01	0.75
40:BS:17:VAL:HG12	40:BS:76:VAL:HG11	1.67	0.75
52:B4:10:LEU:HD12	52:B4:33:HIS:HB3	1.67	0.75
53:CA:246:A:C4	53:CA:282:A:N6	2.54	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:597:G:H2'	53:CA:598:U:C5'	2.13	0.75
53:CA:1135:U:H5'	53:CA:1136:C:OP2	1.85	0.75
2:CB:162:VAL:CG1	2:CB:184:ALA:HB2	2.16	0.75
3:CC:120:THR:HG23	3:CC:187:GLU:O	1.86	0.75
55:CM:68:LEU:HD22	55:CM:69:ARG:HH11	1.50	0.75
22:DA:196:A:H61	22:DA:831:G:H21	1.34	0.75
22:DA:249:C:H4'	22:DA:250:G:O5'	1.87	0.75
22:DA:370:G:N1	22:DA:424:G:C5	2.54	0.75
22:DA:1480:C:H2'	22:DA:1481:U:O4'	1.87	0.75
22:DA:1742:U:H2'	22:DA:1743:G:C8	2.21	0.75
22:DA:1808:A:N6	45:DX:27:ARG:HH11	1.84	0.75
22:DA:2626:C:C2'	22:DA:2627:G:H5'	2.16	0.75
57:DB:44:G:H3'	58:DF:91:ARG:HE	1.52	0.75
36:DO:26:LEU:HD23	36:DO:92:PHE:CE1	2.21	0.75
39:DR:62:GLU:HB3	39:DR:97:LYS:HB3	1.67	0.75
41:DT:60:THR:HG22	41:DT:83:ALA:HA	1.65	0.75
1:AA:255:G:H4'	17:AQ:18:LYS:HE3	1.66	0.75
1:AA:461:A:H3'	1:AA:461:A:N3	2.02	0.75
1:AA:486:U:C6	1:AA:486:U:H5''	2.22	0.75
1:AA:1046:A:O2'	1:AA:1047:G:H5'	1.87	0.75
3:AC:143:LEU:HD22	3:AC:143:LEU:N	2.00	0.75
3:AC:156:LEU:HD12	3:AC:156:LEU:N	2.01	0.75
10:AJ:52:LEU:HD23	10:AJ:62:ARG:CG	2.17	0.75
15:AO:29:ALA:HA	15:AO:84:LEU:HD21	1.67	0.75
20:AT:82:ILE:HD12	20:AT:83:ASN:N	2.01	0.75
22:BA:1498:C:O2'	22:BA:1499:C:C6	2.38	0.75
22:BA:1499:C:O2'	22:BA:1500:G:H5'	1.86	0.75
22:BA:2135:A:O2'	22:BA:2136:G:H8	1.69	0.75
22:BA:2180:U:H2'	22:BA:2181:U:C5	2.21	0.75
22:BA:2207:C:H2'	22:BA:2208:C:H6	1.51	0.75
23:BB:45:A:H2'	23:BB:46:A:H8	1.52	0.75
25:BD:47:ALA:HA	25:BD:84:LEU:HG	1.66	0.75
28:BG:7:PRO:O	28:BG:8:VAL:HB	1.85	0.75
28:BG:126:THR:HG22	28:BG:127:GLN:N	2.00	0.75
31:BJ:44:TYR:HB2	38:BQ:63:ARG:CB	2.12	0.75
53:CA:795:C:H5''	11:CK:127:ARG:HH21	1.50	0.75
3:CC:41:TYR:HE1	3:CC:89:VAL:CG1	1.98	0.75
14:CN:60:ARG:HG2	14:CN:61:ASN:H	1.50	0.75
22:DA:95:A:H2'	22:DA:96:C:C5'	2.16	0.75
22:DA:1310:G:H2'	22:DA:1311:G:O4'	1.85	0.75
22:DA:1507:C:H5'	22:DA:1508:A:OP2	1.87	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:84:ALA:N	29:DH:148:ALA:HA	2.00	0.75
44:DW:16:GLU:OE2	44:DW:16:GLU:HA	1.85	0.75
44:DW:77:LYS:N	44:DW:77:LYS:HZ2	1.84	0.75
47:DZ:16:LEU:H	47:DZ:16:LEU:CD2	2.00	0.75
1:AA:345:C:H3'	37:BP:33:GLU:OE1	1.86	0.75
1:AA:433:G:C2'	1:AA:434:U:H5'	2.16	0.75
1:AA:1218:C:H2'	1:AA:1219:A:C8	2.21	0.75
20:AT:33:LYS:HE2	20:AT:33:LYS:N	2.02	0.75
22:BA:1340:U:H4'	22:BA:1341:G:OP2	1.84	0.75
24:BC:77:VAL:O	24:BC:77:VAL:CG2	2.33	0.75
53:CA:802:A:O2'	53:CA:803:G:H5'	1.87	0.75
54:CG:135:LYS:O	54:CG:139:ASP:HB2	1.86	0.75
8:CH:11:THR:HG22	8:CH:14:ARG:HH12	1.52	0.75
11:CK:23:HIS:HB3	11:CK:30:ILE:HB	1.69	0.75
20:CT:57:VAL:HG12	20:CT:71:ALA:CB	2.17	0.75
22:DA:388:G:N7	22:DA:390:U:H2'	2.02	0.75
22:DA:685:A:H5'	22:DA:686:U:OP1	1.85	0.75
22:DA:2056:G:N2	48:D0:1:ALA:H3	1.85	0.75
24:DC:79:ARG:C	24:DC:80:LEU:HD12	2.11	0.75
58:DF:30:VAL:HA	58:DF:157:THR:HG22	1.68	0.75
1:AA:688:G:H5''	1:AA:688:G:H8	1.52	0.75
7:AG:112:ASP:HB2	7:AG:118:ARG:CG	2.15	0.75
16:AP:52:LEU:O	16:AP:54:LEU:HD12	1.87	0.75
22:BA:491:G:H2'	22:BA:492:A:C8	2.22	0.75
25:BD:89:GLU:HG3	25:BD:94:GLN:OE1	1.86	0.75
44:BW:23:LYS:CE	44:BW:24:ARG:HG3	2.17	0.75
4:CD:39:GLN:C	4:CD:41:GLY:H	1.94	0.75
9:CI:24:ASN:O	9:CI:61:ASP:HA	1.85	0.75
22:DA:1060:U:H1'	22:DA:1062:G:OP2	1.87	0.75
22:DA:1809:A:C2	22:DA:1810:A:C4	2.74	0.75
22:DA:1809:A:O2'	22:DA:1810:A:H8	1.68	0.75
22:DA:1815:A:H4'	22:DA:1816:C:OP1	1.86	0.75
22:DA:1912:A:H62	22:DA:1917:U:H3	1.34	0.75
57:DB:69:G:C4	57:DB:70:C:C6	2.75	0.75
29:DH:68:ARG:HD3	29:DH:71:LYS:HD3	1.66	0.75
37:DP:22:GLY:HA3	37:DP:91:VAL:HG21	1.67	0.75
52:D4:7:VAL:CG1	52:D4:8:LYS:H	1.97	0.75
1:AA:338:A:N1	1:AA:351:G:O6	2.19	0.75
1:AA:374:A:OP1	1:AA:452:A:N1	2.20	0.75
1:AA:966:G:H2'	1:AA:967:C:C5	2.21	0.75
2:AB:77:GLU:HB2	2:AB:80:LYS:HE2	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:108:GLN:O	2:AB:109:SER:C	2.30	0.75
2:AB:112:ARG:O	2:AB:116:LEU:HD23	1.87	0.75
7:AG:71:THR:O	7:AG:90:VAL:HG12	1.87	0.75
22:BA:178:G:O2'	22:BA:179:C:H5'	1.87	0.75
31:BJ:25:LEU:HD22	31:BJ:26:GLY:N	2.01	0.75
31:BJ:39:LYS:HA	31:BJ:43:GLU:HG3	1.68	0.75
41:BT:29:THR:CG2	41:BT:86:THR:HG22	2.17	0.75
44:BW:9:THR:OG1	44:BW:10:ARG:N	2.15	0.75
49:B1:8:ILE:HG23	49:B1:51:ALA:HA	1.67	0.75
53:CA:223:A:H2'	53:CA:224:U:H6	1.51	0.75
53:CA:348:G:H2'	53:CA:349:A:C8	2.19	0.75
53:CA:564:C:H5'	53:CA:564:C:H6	1.51	0.75
53:CA:1125:U:C6	10:CJ:40:ILE:HG12	2.22	0.75
9:CI:71:ILE:CD1	9:CI:72:SER:H	2.00	0.75
12:CL:106:VAL:HG23	12:CL:116:TYR:HB3	1.69	0.75
22:DA:92:U:O2'	22:DA:93:G:H5'	1.87	0.75
22:DA:121:G:O2'	22:DA:122:G:H5'	1.87	0.75
22:DA:395:U:O2'	22:DA:396:G:H8	1.70	0.75
22:DA:414:C:H5''	22:DA:1879:C:O2'	1.87	0.75
22:DA:602:A:H1'	22:DA:656:G:N2	2.02	0.75
22:DA:1010:A:O2'	22:DA:1011:G:H5''	1.87	0.75
22:DA:1676:A:H2	22:DA:1993:U:H5'	1.50	0.75
22:DA:1912:A:N6	22:DA:1917:U:H3	1.85	0.75
22:DA:2699:C:H2'	22:DA:2700:A:C8	2.21	0.75
25:DD:68:PHE:HB3	25:DD:73:VAL:HA	1.69	0.75
26:DE:108:ILE:HD11	26:DE:181:ILE:HB	1.67	0.75
34:DM:33:LEU:CD2	34:DM:128:THR:HB	2.17	0.75
38:DQ:78:PHE:CZ	38:DQ:82:LEU:HD11	2.22	0.75
1:AA:92:U:H2'	1:AA:93:U:C5	2.21	0.75
1:AA:826:C:H5'	8:AH:12:ARG:HH21	1.51	0.75
6:AF:86:ARG:HD2	18:AR:63:TYR:O	1.87	0.75
10:AJ:56:HIS:HD2	10:AJ:57:VAL:HG12	1.51	0.75
21:AU:16:ARG:HH11	21:AU:19:LYS:CG	1.98	0.75
22:BA:894:U:H2'	22:BA:895:U:C6	2.21	0.75
22:BA:1179:G:C5	22:BA:1180:U:C1'	2.69	0.75
25:BD:169:ARG:O	25:BD:170:VAL:CG1	2.35	0.75
29:BH:18:GLN:HE21	29:BH:18:GLN:CA	2.00	0.75
29:BH:38:PRO:HB2	29:BH:40:THR:HG23	1.69	0.75
30:BI:115:ASP:O	30:BI:116:MET:HG2	1.86	0.75
37:BP:92:ARG:O	37:BP:93:LYS:HB2	1.87	0.75
41:BT:40:LYS:CA	41:BT:43:ILE:HG23	2.16	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:BW:47:GLY:O	44:BW:49:ASN:N	2.20	0.75
47:BZ:29:ARG:C	47:BZ:30:ARG:HG3	2.12	0.75
53:CA:32:A:H2'	53:CA:33:A:H8	1.49	0.75
53:CA:1499:A:O2'	53:CA:1500:A:H5'	1.85	0.75
3:CC:91:ALA:HB2	3:CC:98:ALA:HB3	1.67	0.75
22:DA:138:U:H2'	22:DA:140:C:H1'	1.68	0.75
22:DA:1965:C:H2'	22:DA:1966:A:C8	2.22	0.75
57:DB:75:G:H1	57:DB:102:G:H22	1.35	0.75
32:DK:94:PRO:HG3	32:DK:115:ILE:CD1	2.17	0.75
36:DO:57:ALA:C	36:DO:58:ILE:HD12	2.11	0.75
1:AA:94:G:C4'	1:AA:95:C:H5''	2.17	0.74
20:AT:53:MET:O	20:AT:56:ILE:HG22	1.87	0.74
22:BA:26:G:H1'	22:BA:514:A:N6	2.02	0.74
22:BA:141:G:H5'	22:BA:142:A:C8	2.22	0.74
22:BA:915:C:H5''	22:BA:915:C:C6	2.21	0.74
22:BA:2286:G:O6	49:B1:22:THR:HG21	1.86	0.74
25:BD:13:ARG:HH12	37:BP:74:GLN:NE2	1.84	0.74
27:BF:106:ALA:N	27:BF:108:PRO:HD2	2.01	0.74
39:BR:27:ILE:HD13	39:BR:27:ILE:H	1.51	0.74
51:B3:22:LYS:HA	51:B3:47:ALA:O	1.87	0.74
53:CA:335:C:O2	53:CA:1433:A:H2	1.69	0.74
2:CB:95:TRP:CZ2	2:CB:100:LEU:HD13	2.22	0.74
22:DA:195:A:C6	22:DA:198:C:C5	2.75	0.74
22:DA:216:A:N3	22:DA:217:A:C8	2.55	0.74
22:DA:312:G:H5'	22:DA:331:C:O2'	1.87	0.74
22:DA:942:G:H2'	22:DA:943:A:H5'	1.69	0.74
22:DA:1714:U:H3'	22:DA:1715:G:H5'	1.68	0.74
22:DA:1759:A:H2'	22:DA:1760:C:C6	2.22	0.74
22:DA:2311:A:H3'	22:DA:2312:U:H6	1.51	0.74
24:DC:28:PRO:HB3	24:DC:62:ARG:HH22	1.50	0.74
25:DD:16:THR:CG2	25:DD:20:VAL:HB	2.17	0.74
25:DD:16:THR:HG22	25:DD:20:VAL:HB	1.68	0.74
25:DD:34:VAL:CG1	25:DD:48:ILE:HD11	2.16	0.74
26:DE:29:HIS:HA	26:DE:32:VAL:CG2	2.17	0.74
58:DF:43:ILE:HD13	58:DF:82:TYR:HE2	1.51	0.74
31:DJ:8:PRO:HG2	31:DJ:9:GLU:H	1.52	0.74
35:DN:73:ASN:HA	35:DN:76:VAL:CG2	2.17	0.74
36:DO:94:ARG:HD2	36:DO:97:PHE:O	1.87	0.74
1:AA:723:U:H5''	21:AU:48:LYS:HG2	1.66	0.74
1:AA:862:C:C2'	1:AA:863:U:H5'	2.17	0.74
5:AE:45:VAL:CG2	5:AE:117:ALA:HA	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:5:VAL:H	25:BD:32:ASN:ND2	1.83	0.74
31:BJ:21:THR:CG2	31:BJ:22:GLY:N	2.49	0.74
31:BJ:65:THR:HG22	31:BJ:68:LYS:HE3	1.68	0.74
35:BN:3:HIS:O	35:BN:4:ARG:HB2	1.85	0.74
37:BP:4:ILE:HG22	37:BP:5:LYS:N	2.02	0.74
53:CA:1011:C:H2'	53:CA:1012:A:C8	2.22	0.74
53:CA:1218:C:H2'	53:CA:1219:A:H8	1.49	0.74
53:CA:1241:G:H2'	53:CA:1242:G:H8	1.52	0.74
22:DA:389:G:O2'	22:DA:390:U:H5'	1.86	0.74
57:DB:86:G:H2'	57:DB:87:U:H5''	1.67	0.74
25:DD:4:LEU:HB3	25:DD:32:ASN:HD21	1.52	0.74
25:DD:89:GLU:HG2	25:DD:94:GLN:NE2	2.02	0.74
40:DS:20:VAL:HG23	40:DS:23:LEU:CD1	2.16	0.74
1:AA:254:G:O2'	1:AA:255:G:H5'	1.87	0.74
1:AA:1279:G:H1'	1:AA:1282:C:N4	2.02	0.74
1:AA:1399:C:H4'	1:AA:1400:C:O5'	1.86	0.74
4:AD:106:PHE:CG	4:AD:144:ILE:HD11	2.22	0.74
21:AU:35:GLU:O	21:AU:36:PHE:HB2	1.87	0.74
22:BA:528:A:C2	22:BA:2042:A:H2'	2.22	0.74
22:BA:1060:U:O4'	22:BA:1062:G:H5''	1.86	0.74
22:BA:1150:C:C2'	22:BA:1151:A:O5'	2.36	0.74
22:BA:1644:C:H2'	22:BA:1645:G:H5'	1.67	0.74
22:BA:2352:A:C6	44:BW:30:VAL:HG11	2.21	0.74
22:BA:2510:C:C6	22:BA:2510:C:C5'	2.67	0.74
22:BA:2572:A:C8	25:BD:150:GLN:HB3	2.22	0.74
33:BL:114:GLY:C	33:BL:115:GLU:HG3	2.12	0.74
39:BR:27:ILE:HD13	39:BR:27:ILE:N	2.02	0.74
44:BW:28:GLU:HG3	44:BW:29:SER:H	1.51	0.74
44:BW:37:VAL:HG13	44:BW:55:ASP:O	1.87	0.74
53:CA:1003:G:N2	53:CA:1005:A:H5''	2.02	0.74
53:CA:1372:U:H5''	9:CI:71:ILE:HD11	1.68	0.74
2:CB:78:ALA:O	2:CB:213:LEU:HD23	1.87	0.74
9:CI:17:ARG:HB2	9:CI:65:THR:HB	1.67	0.74
22:DA:397:U:OP2	45:DX:9:LYS:HE2	1.87	0.74
22:DA:469:G:P	26:DE:55:SER:HB3	2.28	0.74
22:DA:811:U:H1'	22:DA:1251:C:C2	2.21	0.74
22:DA:834:G:H1'	22:DA:2358:A:C2	2.22	0.74
22:DA:992:C:O3'	39:DR:74:ILE:HD13	1.88	0.74
22:DA:1345:C:H5''	22:DA:1396:U:O4	1.87	0.74
22:DA:2552:U:C2	22:DA:2554:U:H5'	2.23	0.74
58:DF:42:ALA:CB	58:DF:49:LEU:HD21	2.17	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:19:LYS:HE2	41:DT:23:ALA:HB3	1.69	0.74
1:AA:683:G:H21	11:AK:39:ASN:HA	1.52	0.74
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.23	0.74
13:AM:26:LYS:O	13:AM:30:LYS:HG3	1.87	0.74
22:BA:1602:U:O4	62:BA:3706:HOH:O	2.05	0.74
24:BC:108:GLY:C	24:BC:109:LEU:HD22	2.12	0.74
26:BE:146:VAL:HG23	26:BE:167:VAL:HG23	1.67	0.74
31:BJ:44:TYR:HD1	31:BJ:44:TYR:O	1.69	0.74
31:BJ:103:ILE:O	31:BJ:103:ILE:HD12	1.88	0.74
32:BK:59:LYS:HE2	32:BK:89:ASN:O	1.87	0.74
32:BK:71:ARG:CB	32:BK:72:PRO:CD	2.65	0.74
34:BM:71:LYS:HB3	34:BM:93:VAL:O	1.87	0.74
42:BU:5:ARG:O	42:BU:8:ASP:HB2	1.88	0.74
53:CA:1108:G:H5''	3:CC:175:HIS:CE1	2.22	0.74
12:CL:3:VAL:HG23	12:CL:4:ASN:N	2.00	0.74
56:CP:74:LEU:O	56:CP:78:VAL:HG23	1.86	0.74
22:DA:5:A:C2	22:DA:2899:A:C2	2.76	0.74
22:DA:1056:G:N2	22:DA:1102:C:H5	1.85	0.74
24:DC:173:LEU:HD22	24:DC:173:LEU:H	1.53	0.74
43:DV:73:LYS:O	43:DV:92:VAL:HG22	1.85	0.74
1:AA:209:U:H5'	1:AA:210:C:OP2	1.87	0.74
1:AA:443:C:O2'	1:AA:444:G:H5'	1.88	0.74
1:AA:785:G:C2'	1:AA:786:G:H5'	2.17	0.74
2:AB:58:LYS:NZ	2:AB:62:ARG:HG3	2.03	0.74
22:BA:900:A:C3'	22:BA:901:C:H5'	2.17	0.74
22:BA:1415:U:O2	22:BA:1415:U:H2'	1.87	0.74
22:BA:1996:C:H4'	22:BA:1997:C:OP1	1.87	0.74
22:BA:2558:C:C2'	22:BA:2559:C:H5'	2.17	0.74
30:BI:78:LEU:HD13	30:BI:108:ILE:HG23	1.69	0.74
42:BU:27:VAL:HA	42:BU:33:VAL:HG12	1.68	0.74
53:CA:1258:G:O2'	53:CA:1259:C:H5'	1.88	0.74
4:CD:32:LYS:O	4:CD:33:ILE:HG22	1.87	0.74
14:CN:68:ARG:HG3	14:CN:69:PRO:HD2	1.69	0.74
14:CN:76:PHE:CE2	14:CN:92:ILE:HD13	2.23	0.74
56:CP:75:ILE:HG23	56:CP:80:LYS:HD2	1.69	0.74
22:DA:382:A:C2'	22:DA:383:C:H5''	2.16	0.74
22:DA:412:A:N7	22:DA:2412:A:H1'	2.03	0.74
22:DA:460:A:H2'	22:DA:461:C:O4'	1.86	0.74
22:DA:749:A:H1'	22:DA:1618:A:OP1	1.87	0.74
22:DA:1467:U:H2'	22:DA:1468:U:H5'	1.69	0.74
22:DA:1554:U:H5''	22:DA:1555:G:OP2	1.86	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:137:SER:HB3	25:DD:138:LEU:HD22	1.69	0.74
29:DH:61:VAL:HG13	29:DH:62:LEU:H	1.53	0.74
1:AA:49:U:C2	1:AA:361:G:N2	2.55	0.74
2:AB:20:ARG:HA	2:AB:20:ARG:HH11	1.53	0.74
6:AF:40:GLU:CB	6:AF:42:TRP:HE1	2.00	0.74
7:AG:119:LEU:HD21	7:AG:123:LEU:HD23	1.68	0.74
12:AL:23:LEU:HG	12:AL:24:GLU:H	1.52	0.74
26:BE:124:PHE:CZ	26:BE:148:ILE:HD12	2.22	0.74
29:BH:125:THR:HG23	29:BH:126:GLY:H	1.53	0.74
34:BM:42:THR:HG23	34:BM:45:GLN:OE1	1.86	0.74
39:BR:45:GLU:OE2	39:BR:45:GLU:HA	1.86	0.74
44:BW:24:ARG:HD3	44:BW:65:LYS:CE	2.18	0.74
44:BW:37:VAL:C	44:BW:38:ARG:HG2	2.13	0.74
44:BW:37:VAL:HG22	44:BW:55:ASP:O	1.87	0.74
53:CA:166:U:C2'	53:CA:167:A:H5'	2.17	0.74
10:CJ:47:GLU:HB2	10:CJ:67:ILE:HG13	1.69	0.74
11:CK:27:ASN:N	11:CK:27:ASN:ND2	2.36	0.74
55:CM:78:ARG:NH2	55:CM:79:LEU:HD23	2.02	0.74
22:DA:287:G:O2'	22:DA:288:U:H5'	1.88	0.74
22:DA:634:C:H2'	22:DA:635:C:C6	2.23	0.74
22:DA:1027:A:O2'	22:DA:1028:A:H8	1.70	0.74
22:DA:1682:G:H2'	22:DA:1683:U:C5	2.23	0.74
22:DA:1809:A:O2'	22:DA:1810:A:C8	2.40	0.74
22:DA:2503:A:H4'	22:DA:2504:U:OP1	1.86	0.74
57:DB:54:G:N2	58:DF:25:MET:HE2	2.01	0.74
26:DE:108:ILE:HD13	26:DE:108:ILE:O	1.87	0.74
26:DE:128:ALA:HB1	26:DE:129:PRO:CD	2.17	0.74
29:DH:143:ILE:O	29:DH:144:VAL:HG13	1.87	0.74
34:DM:38:ARG:O	34:DM:126:ILE:HG21	1.85	0.74
44:DW:8:SER:O	44:DW:9:THR:HB	1.86	0.74
1:AA:375:U:H4'	16:AP:17:TYR:HE2	1.53	0.74
1:AA:1143:G:H2'	1:AA:1144:G:H8	1.53	0.74
1:AA:1343:G:H1'	9:AI:122:ARG:HH12	1.53	0.74
2:AB:89:PHE:CZ	2:AB:153:MET:HB2	2.23	0.74
7:AG:3:ARG:HG3	7:AG:4:ARG:H	1.53	0.74
14:AN:40:ARG:HH12	14:AN:44:VAL:HG21	1.51	0.74
21:AU:7:GLU:HB2	21:AU:11:PHE:CE1	2.23	0.74
22:BA:1085:A:H2'	22:BA:1086:A:N3	2.03	0.74
30:BI:79:LEU:HD13	30:BI:135:MET:SD	2.28	0.74
31:BJ:37:ARG:HG3	31:BJ:118:MET:HE1	1.69	0.74
34:BM:136:MET:HE2	43:BV:57:TYR:CD2	2.22	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:754:C:H2'	53:CA:754:C:O2	1.88	0.74
53:CA:1523:G:P	11:CK:124:LYS:HZ3	2.11	0.74
22:DA:216:A:O2'	22:DA:217:A:H8	1.69	0.74
22:DA:1166:G:N2	22:DA:1184:U:H1'	2.01	0.74
22:DA:2142:A:H2'	22:DA:2143:C:H4'	1.68	0.74
22:DA:2390:U:OP2	51:D3:34:LYS:HE2	1.88	0.74
25:DD:133:THR:HG23	25:DD:134:HIS:N	2.01	0.74
25:DD:137:SER:CB	25:DD:138:LEU:HD22	2.18	0.74
39:DR:39:LEU:CB	39:DR:49:ILE:HD13	2.18	0.74
1:AA:1442:G:H2'	1:AA:1443:C:H6	1.53	0.74
4:AD:37:PRO:HD2	4:AD:41:GLY:HA2	1.70	0.74
14:AN:40:ARG:HH12	14:AN:44:VAL:CG1	2.00	0.74
16:AP:79:ASN:O	16:AP:80:LYS:HB2	1.87	0.74
22:BA:28:A:O2'	22:BA:29:U:H5'	1.88	0.74
24:BC:20:ASN:HD21	24:BC:22:GLU:HG2	1.51	0.74
24:BC:144:GLU:HA	24:BC:151:GLY:HA2	1.69	0.74
25:BD:5:VAL:N	25:BD:32:ASN:HD21	1.83	0.74
31:BJ:44:TYR:O	31:BJ:44:TYR:CD1	2.40	0.74
44:BW:30:VAL:HG22	44:BW:30:VAL:O	1.86	0.74
44:BW:30:VAL:HA	44:BW:60:ALA:HB3	1.69	0.74
52:B4:37:GLN:O	52:B4:37:GLN:HG2	1.86	0.74
53:CA:1346:A:N1	54:CG:9:ARG:NH2	2.35	0.74
4:CD:58:GLN:O	4:CD:62:ARG:HG2	1.88	0.74
6:CF:90:MET:HE1	18:CR:60:ARG:HD3	1.70	0.74
14:CN:52:ARG:HA	14:CN:52:ARG:NE	2.02	0.74
19:CS:54:ARG:HG2	19:CS:55:GLN:H	1.52	0.74
22:DA:206:U:O2'	22:DA:207:A:H5'	1.87	0.74
22:DA:335:C:HO2'	22:DA:336:C:H6	0.75	0.74
22:DA:1027:A:O2'	22:DA:1028:A:C8	2.40	0.74
22:DA:1080:A:O2'	22:DA:1081:U:C6	2.39	0.74
22:DA:2529:G:H4'	28:DG:174:LYS:CD	2.17	0.74
31:DJ:57:LEU:HD11	31:DJ:129:GLU:H	1.51	0.74
34:DM:136:MET:HE2	43:DV:57:TYR:HD2	1.51	0.74
1:AA:274:A:O2'	1:AA:275:G:H8	1.68	0.74
2:AB:13:VAL:CG2	2:AB:207:ARG:HH22	2.00	0.74
2:AB:133:ALA:O	2:AB:137:THR:HG23	1.87	0.74
4:AD:61:ARG:HH21	4:AD:67:LEU:HD23	1.50	0.74
5:AE:79:THR:HB	5:AE:121:ASN:ND2	2.03	0.74
6:AF:36:ILE:HG22	6:AF:64:VAL:CG2	2.18	0.74
22:BA:1179:G:H3'	22:BA:1180:U:C4'	2.14	0.74
22:BA:1927:A:H2'	22:BA:1928:A:C8	2.23	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2334:U:H4'	22:BA:2335:A:OP2	1.87	0.74
30:BI:126:ARG:HA	30:BI:129:GLU:HB2	1.69	0.74
32:BK:7:MET:HE1	32:BK:44:LYS:HG3	1.68	0.74
34:BM:54:THR:O	34:BM:56:ALA:N	2.19	0.74
37:BP:51:ASN:O	37:BP:52:ARG:HG2	1.88	0.74
38:BQ:111:LYS:CE	39:BR:50:GLY:HA2	2.18	0.74
53:CA:17:U:H2'	53:CA:18:C:C6	2.23	0.74
53:CA:968:A:N3	53:CA:1062:U:H4'	2.03	0.74
53:CA:1304:G:H1'	53:CA:1333:A:N6	2.03	0.74
53:CA:1361:G:H2'	53:CA:1362:A:H5'	1.70	0.74
22:DA:456:C:O2'	41:DT:73:ARG:HG3	1.87	0.74
22:DA:720:U:H2'	22:DA:721:A:C8	2.23	0.74
22:DA:865:C:H5''	22:DA:866:A:OP1	1.88	0.74
22:DA:1417:C:H4'	22:DA:1587:G:H21	1.50	0.74
22:DA:1919:A:H2'	22:DA:1920:C:H6	1.52	0.74
31:DJ:45:THR:H	31:DJ:46:PRO:HD3	1.53	0.74
40:DS:70:LYS:H	40:DS:70:LYS:HE3	1.52	0.74
51:D3:15:LYS:HZ1	51:D3:19:GLY:CA	2.01	0.74
2:AB:212:TYR:O	2:AB:216:VAL:HG23	1.87	0.74
6:AF:38:ARG:NH2	6:AF:96:VAL:HG23	2.03	0.74
22:BA:959:A:N6	34:BM:82:MET:HE3	2.02	0.74
22:BA:1287:A:OP2	35:BN:103:ARG:HG3	1.88	0.74
22:BA:2508:G:C2'	22:BA:2509:G:O5'	2.36	0.74
53:CA:775:G:C2'	53:CA:776:G:H5'	2.17	0.74
21:CU:16:ARG:HG3	21:CU:19:LYS:CG	2.07	0.74
22:DA:1439:A:C2	22:DA:1553:A:N7	2.56	0.74
22:DA:2353:G:H1'	44:DW:30:VAL:HG13	1.69	0.74
24:DC:179:GLU:HA	24:DC:269:ARG:O	1.88	0.74
28:DG:72:ASN:O	28:DG:76:ILE:HG12	1.88	0.74
30:DI:5:GLN:OE1	30:DI:59:THR:HG21	1.87	0.74
35:DN:82:GLU:C	35:DN:85:PRO:HD2	2.12	0.74
35:DN:103:ARG:HD3	35:DN:110:MET:SD	2.27	0.74
41:DT:29:THR:HB	41:DT:87:LEU:N	2.03	0.74
9:AI:44:ARG:HG3	9:AI:45:MET:CE	2.17	0.73
13:AM:40:GLU:HG3	13:AM:41:ASP:N	2.03	0.73
22:BA:412:A:O2'	22:BA:413:C:H5'	1.87	0.73
22:BA:1252:G:N3	38:BQ:32:ARG:HG2	2.03	0.73
22:BA:1654:A:H4'	25:BD:118:PHE:CZ	2.23	0.73
25:BD:38:LYS:O	25:BD:46:ARG:HA	1.88	0.73
27:BF:82:TYR:HD2	27:BF:83:PRO:HD2	1.53	0.73
28:BG:112:VAL:HG23	28:BG:113:ASP:H	1.53	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:15:G:H2'	53:CA:16:A:C8	2.23	0.73
53:CA:97:G:C6	53:CA:98:A:H1'	2.23	0.73
53:CA:654:G:H2'	53:CA:655:A:H8	1.53	0.73
53:CA:828:U:H2'	53:CA:829:G:O5'	1.88	0.73
54:CG:24:LYS:O	54:CG:28:ILE:HG12	1.88	0.73
55:CM:12:LYS:HB3	55:CM:17:ALA:HB2	1.70	0.73
22:DA:464:U:H1'	22:DA:686:U:H5	1.51	0.73
22:DA:2136:G:H2'	22:DA:2137:U:H5	1.50	0.73
22:DA:2882:A:C5'	35:DN:96:ARG:HD3	2.18	0.73
47:DZ:16:LEU:HD22	47:DZ:16:LEU:N	2.03	0.73
49:D1:8:ILE:HD11	49:D1:52:LYS:HE3	1.70	0.73
1:AA:179:A:C2'	1:AA:180:U:H5'	2.17	0.73
1:AA:598:U:H4'	8:AH:85:TYR:CD1	2.23	0.73
1:AA:1239:A:N6	1:AA:1299:A:N6	2.34	0.73
1:AA:1348:U:O2'	1:AA:1349:A:H5'	1.87	0.73
6:AF:18:VAL:O	6:AF:22:ILE:HD12	1.87	0.73
11:AK:106:ILE:HD13	11:AK:106:ILE:O	1.88	0.73
24:BC:18:VAL:O	24:BC:18:VAL:HG13	1.88	0.73
29:BH:14:SER:OG	29:BH:17:ASP:HB2	1.88	0.73
32:BK:61:VAL:CG2	32:BK:87:LEU:HD11	2.18	0.73
33:BL:77:ILE:CD1	33:BL:108:ALA:HB1	2.16	0.73
53:CA:536:C:H2'	53:CA:537:G:H8	1.52	0.73
53:CA:1014:A:H4'	19:CS:13:HIS:HD2	1.50	0.73
4:CD:115:GLN:HE22	4:CD:153:ARG:HH22	1.36	0.73
22:DA:2056:G:C2	22:DA:2057:G:C8	2.76	0.73
22:DA:2468:A:O2'	22:DA:2469:A:H8	1.71	0.73
22:DA:2626:C:O2'	22:DA:2627:G:H5'	1.87	0.73
25:DD:94:GLN:HG2	25:DD:94:GLN:O	1.87	0.73
13:AM:3:ILE:HA	13:AM:56:ARG:NH1	2.03	0.73
22:BA:855:G:H1'	44:BW:23:LYS:HD3	1.70	0.73
22:BA:2231:U:O2'	22:BA:2232:C:H5'	1.88	0.73
23:BB:89:U:H3'	23:BB:90:C:C5'	2.18	0.73
34:BM:8:LYS:HD2	34:BM:8:LYS:N	2.00	0.73
41:BT:29:THR:HA	41:BT:86:THR:CA	2.18	0.73
44:BW:24:ARG:CD	44:BW:25:PHE:N	2.50	0.73
53:CA:90:C:O2'	53:CA:91:U:C6	2.39	0.73
53:CA:91:U:O2'	53:CA:92:U:H6	1.70	0.73
53:CA:663:A:O2'	53:CA:664:G:H5'	1.88	0.73
22:DA:53:A:C2	22:DA:179:C:H4'	2.23	0.73
22:DA:469:G:OP2	26:DE:55:SER:HB3	1.87	0.73
22:DA:1918:A:H4'	22:DA:1919:A:OP1	1.86	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2303:G:H5'	58:DF:121:PHE:CE1	2.24	0.73
22:DA:2823:A:C5	22:DA:2824:C:C5	2.75	0.73
26:DE:6:LYS:HE3	26:DE:7:ASP:OD2	1.88	0.73
26:DE:133:LEU:O	26:DE:137:LYS:HB2	1.87	0.73
29:DH:80:ILE:HB	29:DH:101:ASP:HB2	1.66	0.73
35:DN:37:THR:HB	35:DN:40:LYS:HB2	1.71	0.73
1:AA:452:A:H2'	1:AA:453:G:O4'	1.87	0.73
1:AA:1314:C:O2'	1:AA:1315:U:H5'	1.88	0.73
12:AL:43:LYS:HB2	12:AL:44:PRO:HD3	1.70	0.73
22:BA:319:G:C4	22:BA:333:G:N2	2.57	0.73
22:BA:1494:A:H2'	22:BA:1495:A:C8	2.23	0.73
22:BA:1867:G:C2'	22:BA:1868:C:H5'	2.19	0.73
22:BA:2336:A:H61	44:BW:40:ARG:HB3	1.50	0.73
23:BB:49:C:O2'	23:BB:50:A:H5'	1.88	0.73
24:BC:106:PRO:CA	24:BC:141:HIS:HE1	2.00	0.73
25:BD:120:GLY:HA2	25:BD:162:ALA:HB1	1.71	0.73
27:BF:127:TYR:O	27:BF:128:SER:HB2	1.88	0.73
31:BJ:44:TYR:HD1	31:BJ:44:TYR:C	1.96	0.73
34:BM:13:HIS:O	34:BM:14:LYS:CB	2.35	0.73
37:BP:50:ARG:HD2	37:BP:51:ASN:N	2.02	0.73
39:BR:21:ARG:NH2	39:BR:93:PHE:CE1	2.57	0.73
44:BW:9:THR:HG23	44:BW:10:ARG:CD	2.14	0.73
44:BW:14:ASP:O	44:BW:15:SER:HB2	1.89	0.73
53:CA:410:G:OP1	4:CD:25:ARG:HD2	1.88	0.73
53:CA:719:C:H3'	53:CA:720:C:C6	2.23	0.73
3:CC:9:ILE:HD12	14:CN:97:LYS:HD3	1.68	0.73
22:DA:2542:A:H4'	22:DA:2543:G:C5'	2.18	0.73
58:DF:147:ARG:HG2	58:DF:149:ARG:HH12	1.51	0.73
37:DP:22:GLY:HA3	37:DP:91:VAL:CG2	2.19	0.73
42:DU:35:VAL:HG12	42:DU:36:GLU:N	2.03	0.73
22:BA:142:A:H2'	22:BA:143:C:C5	2.23	0.73
22:BA:528:A:H5''	31:BJ:116:ARG:NH2	2.02	0.73
22:BA:1056:G:O2'	22:BA:1086:A:H1'	1.88	0.73
22:BA:1941:C:H2'	22:BA:1942:C:C6	2.24	0.73
22:BA:2425:A:H5'	22:BA:2427:C:H5'	1.71	0.73
27:BF:45:ASP:HB3	27:BF:48:LEU:HB2	1.70	0.73
28:BG:8:VAL:CG1	28:BG:49:LEU:HB2	2.10	0.73
29:BH:147:VAL:HG12	29:BH:149:GLU:HG3	1.70	0.73
53:CA:961:U:HO2'	53:CA:962:C:H6	0.77	0.73
4:CD:89:LEU:CD2	4:CD:199:ILE:HD11	2.18	0.73
8:CH:1:SER:C	8:CH:3:GLN:H	1.95	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:78:ARG:HH21	55:CM:79:LEU:CD2	2.01	0.73
22:DA:374:A:H2'	22:DA:375:G:H8	1.51	0.73
22:DA:1338:G:H4'	41:DT:18:GLU:CD	2.12	0.73
22:DA:1821:A:H5'	24:DC:156:SER:OG	1.88	0.73
22:DA:2052:A:O2'	22:DA:2053:G:H5'	1.88	0.73
22:DA:2304:G:N2	22:DA:2312:U:H3	1.83	0.73
24:DC:93:VAL:CG1	24:DC:101:ARG:H	2.00	0.73
32:DK:61:VAL:HG11	32:DK:112:PHE:CE2	2.22	0.73
38:DQ:4:LYS:HE3	38:DQ:7:VAL:HG22	1.70	0.73
39:DR:48:LYS:HD2	39:DR:48:LYS:H	1.53	0.73
1:AA:731:G:OP1	1:AA:766:A:H1'	1.87	0.73
1:AA:1468:A:H2'	1:AA:1469:C:H5''	1.70	0.73
3:AC:156:LEU:H	3:AC:156:LEU:CD1	2.02	0.73
5:AE:156:ARG:O	5:AE:158:LYS:N	2.22	0.73
6:AF:90:MET:HE1	18:AR:22:TYR:CZ	2.23	0.73
7:AG:119:LEU:CD2	7:AG:123:LEU:HD23	2.18	0.73
22:BA:946:C:O2'	22:BA:947:A:C5'	2.36	0.73
26:BE:119:ILE:HD11	26:BE:187:VAL:HG22	1.70	0.73
33:BL:111:ILE:HD12	33:BL:128:THR:HG21	1.70	0.73
44:BW:17:ALA:O	44:BW:18:LYS:HB3	1.88	0.73
53:CA:120:A:O2'	53:CA:121:U:H5''	1.89	0.73
53:CA:252:U:H2'	53:CA:253:A:C8	2.23	0.73
53:CA:987:G:N3	53:CA:988:G:N7	2.37	0.73
4:CD:121:ALA:O	4:CD:145:ARG:HB2	1.88	0.73
54:CG:134:VAL:HB	54:CG:137:ARG:NH2	2.02	0.73
22:DA:638:G:H2'	22:DA:639:U:C6	2.23	0.73
22:DA:1537:G:H2'	22:DA:1538:G:C4'	2.13	0.73
22:DA:1965:C:C3'	22:DA:1966:A:H5''	2.17	0.73
22:DA:1965:C:C5'	22:DA:1966:A:H5''	2.18	0.73
32:DK:108:ARG:HA	32:DK:116:ILE:HD13	1.70	0.73
33:DL:110:VAL:C	33:DL:111:ILE:HD13	2.14	0.73
35:DN:22:ARG:HG3	35:DN:70:THR:HA	1.71	0.73
37:DP:67:GLU:CD	37:DP:68:GLY:H	1.97	0.73
41:DT:61:LEU:C	41:DT:61:LEU:HD12	2.14	0.73
1:AA:707:U:OP1	11:AK:86:LYS:HE3	1.88	0.73
2:AB:32:GLY:HA3	2:AB:39:ILE:HG12	1.69	0.73
2:AB:42:LEU:HG	2:AB:43:GLU:N	2.03	0.73
4:AD:116:LEU:C	4:AD:122:ILE:HD11	2.13	0.73
10:AJ:57:VAL:HG22	10:AJ:58:ASN:N	2.03	0.73
11:AK:13:LYS:O	11:AK:14:GLN:HB3	1.89	0.73
32:BK:19:VAL:HG22	32:BK:41:ILE:CG1	2.19	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:797:G:OP1	26:DE:57:LYS:HG2	1.88	0.73
22:DA:1288:G:C8	22:DA:1327:A:N6	2.56	0.73
22:DA:1698:A:H1'	22:DA:1700:A:OP2	1.89	0.73
22:DA:1830:C:H5'	24:DC:14:HIS:HE1	1.53	0.73
22:DA:2214:C:H2'	22:DA:2215:C:C6	2.22	0.73
22:DA:2614:A:H4'	22:DA:2615:U:OP1	1.88	0.73
24:DC:159:THR:O	24:DC:194:VAL:HG12	1.88	0.73
1:AA:797:C:OP2	11:AK:125:LYS:HG3	1.88	0.73
2:AB:119:GLN:C	2:AB:119:GLN:HE21	1.97	0.73
16:AP:48:GLU:HG3	16:AP:49:GLY:N	2.04	0.73
22:BA:201:C:H2'	22:BA:202:U:H5'	1.71	0.73
22:BA:1321:A:H2'	22:BA:1322:A:C8	2.23	0.73
22:BA:1913:A:OP1	22:BA:1913:A:H4'	1.88	0.73
22:BA:2287:A:C2	22:BA:2289:G:C6	2.77	0.73
22:BA:2321:U:H6	22:BA:2321:U:H5''	1.53	0.73
41:BT:73:ARG:HB3	41:BT:73:ARG:CZ	2.18	0.73
46:BY:9:LYS:CB	46:BY:12:GLU:HG3	2.18	0.73
53:CA:369:G:O2'	53:CA:370:C:H5'	1.89	0.73
53:CA:1217:C:HO2'	53:CA:1218:C:H6	0.79	0.73
4:CD:2:ARG:NE	4:CD:114:ARG:HD2	2.03	0.73
56:CP:20:VAL:HA	56:CP:36:VAL:HG12	1.71	0.73
22:DA:602:A:H4'	22:DA:604:G:O3'	1.87	0.73
22:DA:740:C:H5''	22:DA:1784:A:H3'	1.69	0.73
22:DA:1049:C:O2	22:DA:1113:U:H4'	1.88	0.73
22:DA:1590:A:H2'	22:DA:1591:A:H8	1.53	0.73
22:DA:2136:G:C2'	22:DA:2137:U:C6	2.71	0.73
31:DJ:13:ARG:HG2	31:DJ:51:GLY:O	1.88	0.73
35:DN:75:ILE:HD12	35:DN:79:LEU:HD12	1.69	0.73
41:DT:38:ALA:HB1	41:DT:81:LYS:HZ3	1.48	0.73
44:DW:18:LYS:H	44:DW:36:ILE:CG1	2.02	0.73
11:AK:106:ILE:HD13	11:AK:106:ILE:C	2.14	0.73
22:BA:1919:A:O2'	22:BA:1920:C:H5'	1.88	0.73
24:BC:255:LYS:O	24:BC:257:ARG:N	2.18	0.73
26:BE:46:GLN:HG3	26:BE:87:ALA:H	1.53	0.73
47:BZ:12:ALA:HA	47:BZ:15:ARG:HD3	1.70	0.73
53:CA:821:G:H2'	53:CA:822:U:C6	2.23	0.73
53:CA:994:A:N3	53:CA:995:C:C6	2.57	0.73
53:CA:1190:G:O2'	53:CA:1191:A:P	2.46	0.73
56:CP:71:VAL:O	56:CP:74:LEU:HB2	1.88	0.73
22:DA:118:A:H1'	22:DA:178:G:O4'	1.89	0.73
22:DA:412:A:O2'	22:DA:413:C:C5'	2.35	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:590:A:H2'	22:DA:591:U:H6	1.52	0.73
29:DH:41:LYS:HA	29:DH:44:ILE:CG1	2.18	0.73
32:DK:87:LEU:HD12	32:DK:92:GLU:CA	2.17	0.73
9:AI:9:GLY:HA2	9:AI:80:HIS:HD2	1.53	0.73
10:AJ:32:THR:HG23	10:AJ:33:GLY:H	1.53	0.73
22:BA:242:G:OP2	51:B3:2:LYS:HE2	1.88	0.73
22:BA:271:G:O2'	22:BA:272:A:H5''	1.88	0.73
22:BA:1315:C:O2'	22:BA:1316:U:H5'	1.89	0.73
22:BA:2210:U:C2	22:BA:2212:A:N7	2.56	0.73
27:BF:35:LEU:HB3	27:BF:153:ILE:HG23	1.69	0.73
30:BI:33:ASN:HD22	30:BI:64:ARG:NH2	1.85	0.73
32:BK:43:ILE:N	32:BK:43:ILE:HD13	2.04	0.73
37:BP:21:PRO:HA	37:BP:46:VAL:HG11	1.70	0.73
40:BS:48:LYS:O	40:BS:52:GLU:HG3	1.87	0.73
41:BT:32:LEU:O	41:BT:34:VAL:HG13	1.89	0.73
44:BW:24:ARG:CD	44:BW:65:LYS:HE2	2.19	0.73
53:CA:162:A:H2'	53:CA:163:C:O4'	1.88	0.73
53:CA:1168:U:O2	53:CA:1168:U:C2'	2.35	0.73
3:CC:137:VAL:O	3:CC:140:ALA:HB3	1.89	0.73
6:CF:2:ARG:NH2	6:CF:91:ARG:HB2	2.04	0.73
12:CL:89:LEU:HB3	12:CL:92:VAL:HG21	1.68	0.73
21:CU:38:GLU:HA	21:CU:41:THR:OG1	1.88	0.73
22:DA:999:U:C2'	22:DA:1000:A:H5'	2.18	0.73
22:DA:1021:A:C2'	22:DA:1022:G:H4'	2.18	0.73
35:DN:32:GLU:OE1	35:DN:115:LEU:HD12	1.88	0.73
40:DS:71:VAL:O	40:DS:71:VAL:HG13	1.89	0.73
46:DY:19:LEU:HA	46:DY:22:LEU:HB2	1.71	0.73
1:AA:1240:U:H3'	1:AA:1241:G:C5'	2.19	0.72
5:AE:155:LYS:HA	5:AE:158:LYS:HZ3	1.54	0.72
11:AK:52:ARG:HD2	11:AK:56:LYS:HD3	1.69	0.72
16:AP:48:GLU:HG3	16:AP:49:GLY:H	1.54	0.72
22:BA:2291:U:H2'	22:BA:2292:U:C6	2.23	0.72
22:BA:2438:U:O2'	22:BA:2439:A:H5''	1.89	0.72
24:BC:16:VAL:HB	24:BC:203:VAL:HB	1.70	0.72
28:BG:10:VAL:O	28:BG:10:VAL:HG23	1.88	0.72
28:BG:63:GLN:HA	28:BG:63:GLN:OE1	1.87	0.72
31:BJ:84:ILE:O	31:BJ:84:ILE:HG13	1.89	0.72
53:CA:116:A:O2'	53:CA:117:G:H5'	1.89	0.72
53:CA:537:G:H2'	53:CA:538:G:C8	2.23	0.72
53:CA:643:C:O2'	53:CA:644:U:H5'	1.89	0.72
53:CA:1046:A:H2'	53:CA:1047:G:O5'	1.89	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1183:U:C3'	53:CA:1184:G:H5''	2.15	0.72
3:CC:148:ILE:CD1	3:CC:201:ILE:HG12	2.19	0.72
4:CD:156:ALA:O	4:CD:160:LEU:HD23	1.88	0.72
55:CM:64:VAL:HG12	55:CM:65:GLU:N	2.01	0.72
22:DA:108:G:H2'	22:DA:109:C:C6	2.24	0.72
22:DA:527:C:H2'	22:DA:527:C:O2	1.87	0.72
22:DA:1325:U:H4'	22:DA:1326:U:OP1	1.89	0.72
24:DC:62:ARG:HH21	24:DC:62:ARG:CG	2.01	0.72
30:DI:104:GLN:HA	30:DI:107:GLU:CB	2.18	0.72
33:DL:110:VAL:HB	33:DL:127:VAL:HA	1.71	0.72
34:DM:66:ARG:CZ	34:DM:101:VAL:HG11	2.19	0.72
35:DN:24:MET:HG2	35:DN:44:LEU:HD22	1.70	0.72
42:DU:73:ASN:HB3	42:DU:95:PHE:HE2	1.53	0.72
2:AB:116:LEU:CD1	2:AB:140:LEU:HD11	2.19	0.72
3:AC:139:ASN:HA	3:AC:142:ARG:HB2	1.72	0.72
9:AI:50:PRO:HG3	9:AI:82:ILE:HD12	1.71	0.72
22:BA:186:G:H2'	22:BA:187:G:H8	1.54	0.72
22:BA:729:G:N3	22:BA:729:G:H2'	2.03	0.72
22:BA:1190:G:OP1	33:BL:32:GLY:HA2	1.89	0.72
35:BN:117:ASP:O	35:BN:118:ARG:HB2	1.88	0.72
50:B2:24:THR:HG23	50:B2:27:GLY:H	1.52	0.72
53:CA:321:A:C1'	53:CA:1435:G:O2'	2.37	0.72
53:CA:1299:A:O2'	53:CA:1300:G:H4'	1.88	0.72
3:CC:36:PHE:HE1	14:CN:91:GLU:HB3	1.54	0.72
54:CG:12:LEU:HD22	54:CG:13:PRO:O	1.90	0.72
22:DA:828:U:C5	22:DA:829:A:N6	2.57	0.72
22:DA:1722:A:N6	22:DA:1738:G:H1'	2.04	0.72
22:DA:1734:G:C2'	22:DA:1735:A:H8	2.01	0.72
22:DA:2267:A:N6	22:DA:2272:U:N3	2.27	0.72
22:DA:2286:G:H4'	22:DA:2287:A:C1'	2.19	0.72
22:DA:2296:U:H5	36:DO:9:ARG:HH22	1.35	0.72
33:DL:20:GLY:HA2	33:DL:28:GLY:HA2	1.69	0.72
34:DM:40:ARG:HB2	34:DM:93:VAL:HG21	1.71	0.72
42:DU:81:ARG:HD2	42:DU:81:ARG:H	1.53	0.72
22:BA:979:A:H2'	22:BA:982:C:H42	1.52	0.72
22:BA:1682:G:C8	22:BA:1757:A:C2	2.76	0.72
35:BN:116:VAL:HG22	35:BN:116:VAL:O	1.88	0.72
37:BP:33:GLU:HG3	37:BP:34:GLY:H	1.54	0.72
43:BV:80:HIS:CD2	43:BV:83:LYS:H	2.06	0.72
53:CA:60:A:H4'	53:CA:61:G:O5'	1.87	0.72
53:CA:802:A:C2'	53:CA:803:G:H5'	2.19	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:825:A:H2'	53:CA:826:C:H6	1.54	0.72
53:CA:1053:G:O6	53:CA:1199:U:H2'	1.89	0.72
53:CA:1455:G:H2'	53:CA:1456:A:C8	2.24	0.72
53:CA:1526:G:OP1	21:CU:38:GLU:HG3	1.88	0.72
22:DA:226:A:C2	22:DA:230:G:O6	2.42	0.72
22:DA:242:G:H8	51:D3:3:ILE:O	1.72	0.72
22:DA:374:A:H2'	22:DA:375:G:C8	2.25	0.72
22:DA:1817:G:O2'	22:DA:1818:U:C5'	2.36	0.72
44:DW:39:GLN:HE22	44:DW:58:LEU:HD23	1.51	0.72
49:D1:16:THR:CG2	49:D1:42:VAL:HG23	2.19	0.72
1:AA:1349:A:H2'	1:AA:1350:A:C8	2.23	0.72
4:AD:160:LEU:H	4:AD:160:LEU:HD13	1.53	0.72
11:AK:66:ALA:HB1	11:AK:99:LEU:HD13	1.70	0.72
12:AL:43:LYS:HZ2	12:AL:44:PRO:HD2	1.53	0.72
15:AO:57:ARG:HH11	15:AO:57:ARG:HB3	1.53	0.72
20:AT:66:ILE:HD11	20:AT:70:LYS:HE3	1.71	0.72
22:BA:693:A:H2'	22:BA:694:U:O4'	1.88	0.72
22:BA:936:A:H2'	22:BA:937:C:H6	1.53	0.72
22:BA:942:G:C2'	22:BA:943:A:H5'	2.17	0.72
22:BA:2148:G:H2'	22:BA:2149:U:O4'	1.90	0.72
24:BC:158:GLY:N	24:BC:194:VAL:HG13	2.02	0.72
28:BG:97:VAL:HG22	28:BG:102:ILE:HG12	1.69	0.72
53:CA:438:U:H2'	53:CA:494:G:O6	1.89	0.72
53:CA:642:A:O2'	53:CA:643:C:C6	2.41	0.72
53:CA:704:A:H2'	53:CA:705:G:H8	1.55	0.72
53:CA:808:C:OP1	15:CO:47:LYS:HE2	1.88	0.72
53:CA:982:U:H1'	53:CA:983:A:C8	2.24	0.72
53:CA:1316:G:N2	53:CA:1318:A:H3'	2.04	0.72
2:CB:79:VAL:HA	2:CB:213:LEU:CD2	2.15	0.72
3:CC:14:VAL:HG12	3:CC:14:VAL:O	1.86	0.72
11:CK:121:ARG:NH2	21:CU:35:GLU:HB2	2.05	0.72
22:DA:1309:G:H4'	50:D2:7:PRO:HB2	1.71	0.72
22:DA:1847:A:O2'	22:DA:1848:A:C8	2.42	0.72
22:DA:2201:G:H2'	22:DA:2202:U:H6	1.53	0.72
22:DA:2259:U:O2'	22:DA:2260:C:C6	2.43	0.72
22:DA:2275:C:O2'	34:DM:84:LYS:HA	1.89	0.72
26:DE:29:HIS:HB2	33:DL:6:LEU:HD21	1.70	0.72
26:DE:58:LYS:HB3	26:DE:60:TRP:HE1	1.54	0.72
33:DL:79:LEU:HB3	33:DL:114:GLY:H	1.54	0.72
43:DV:59:GLU:HG2	43:DV:60:VAL:H	1.51	0.72
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:42:TRP:CZ2	6:AF:61:LEU:HD22	2.24	0.72
12:AL:113:ARG:HB3	12:AL:118:VAL:HB	1.72	0.72
16:AP:28:ARG:HE	16:AP:29:ASN:ND2	1.84	0.72
22:BA:417:C:H2'	22:BA:418:C:H6	1.54	0.72
22:BA:1105:U:H2'	22:BA:1106:G:H8	1.53	0.72
22:BA:1964:G:H4'	22:BA:1965:C:OP2	1.88	0.72
22:BA:2336:A:N6	44:BW:40:ARG:HD2	2.04	0.72
24:BC:203:VAL:O	24:BC:204:LEU:HB2	1.87	0.72
33:BL:55:MET:HE2	33:BL:56:PRO:CD	2.19	0.72
45:BX:5:GLN:HE21	45:BX:49:ARG:H	1.37	0.72
46:BY:1:MET:C	46:BY:2:LYS:HD2	2.14	0.72
53:CA:282:A:H2'	53:CA:283:U:H6	1.53	0.72
53:CA:491:G:C2'	53:CA:492:C:H5'	2.19	0.72
53:CA:961:U:OP1	53:CA:961:U:H3'	1.88	0.72
24:DC:64:VAL:HG11	24:DC:66:PHE:CZ	2.23	0.72
29:DH:57:LYS:O	29:DH:57:LYS:HD2	1.89	0.72
40:DS:9:HIS:H	40:DS:102:HIS:CE1	2.07	0.72
44:DW:37:VAL:HG12	44:DW:55:ASP:CB	2.10	0.72
51:D3:32:LEU:HA	51:D3:35:LYS:CG	2.20	0.72
1:AA:92:U:H2'	1:AA:93:U:C6	2.23	0.72
1:AA:363:A:OP1	12:AL:57:THR:HG21	1.89	0.72
1:AA:375:U:H4'	16:AP:17:TYR:CE2	2.25	0.72
1:AA:633:G:H2'	1:AA:634:C:H6	1.55	0.72
13:AM:89:ARG:HD2	13:AM:95:PRO:O	1.89	0.72
22:BA:1813:G:N3	24:BC:49:THR:CG2	2.53	0.72
22:BA:2065:C:H1'	22:BA:2449:U:H3	1.55	0.72
33:BL:29:LYS:HG2	33:BL:30:THR:CG2	2.18	0.72
33:BL:110:VAL:HG11	33:BL:131:ALA:HB1	1.71	0.72
41:BT:28:ASN:CA	41:BT:91:GLN:HE22	2.01	0.72
44:BW:67:LYS:O	44:BW:68:PHE:HB2	1.90	0.72
48:B0:9:ARG:HH21	48:B0:9:ARG:CG	2.01	0.72
53:CA:814:A:H5'	53:CA:1511:G:H4'	1.71	0.72
53:CA:1146:A:O2'	53:CA:1147:C:H5'	1.90	0.72
2:CB:59:ILE:HA	2:CB:62:ARG:HD3	1.71	0.72
54:CG:16:LYS:HE2	9:CI:45:MET:SD	2.29	0.72
55:CM:32:ILE:HD13	55:CM:32:ILE:O	1.89	0.72
22:DA:128:C:H6	22:DA:128:C:H5''	1.53	0.72
22:DA:217:A:C2'	22:DA:218:A:C8	2.70	0.72
22:DA:445:C:H2'	22:DA:446:G:C8	2.23	0.72
22:DA:1307:A:C2'	22:DA:1308:A:H5'	2.19	0.72
22:DA:1413:A:H2'	22:DA:1414:C:C6	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1586:A:H2'	22:DA:1587:G:H8	1.54	0.72
22:DA:1789:A:H5''	24:DC:218:THR:O	1.90	0.72
22:DA:1965:C:H6	22:DA:1965:C:H5''	1.53	0.72
22:DA:2232:C:P	45:DX:26:ARG:HH12	2.13	0.72
29:DH:84:ALA:HB3	29:DH:148:ALA:CA	2.20	0.72
34:DM:27:SER:N	34:DM:66:ARG:NH2	2.32	0.72
1:AA:61:G:H2'	1:AA:62:U:C6	2.25	0.72
1:AA:80:A:C2	1:AA:81:A:H1'	2.24	0.72
1:AA:853:C:C2'	1:AA:854:U:H5'	2.19	0.72
22:BA:1746:A:H2'	22:BA:1747:U:C6	2.25	0.72
24:BC:106:PRO:CA	24:BC:141:HIS:CE1	2.73	0.72
28:BG:117:PRO:HD2	28:BG:120:ILE:HG21	1.71	0.72
45:BX:34:SER:CA	45:BX:49:ARG:HA	2.19	0.72
53:CA:58:C:O2'	53:CA:59:A:H5'	1.90	0.72
2:CB:89:PHE:CE2	2:CB:152:ASP:HB2	2.20	0.72
3:CC:39:ARG:HG2	3:CC:54:ILE:HD13	1.71	0.72
10:CJ:42:LEU:HB3	10:CJ:43:PRO:HD2	1.70	0.72
11:CK:74:LYS:HG3	11:CK:78:ILE:CD1	2.20	0.72
22:DA:716:A:C2'	22:DA:717:C:H5''	2.20	0.72
22:DA:956:G:C1'	34:DM:82:MET:HE1	2.19	0.72
22:DA:975:A:HO2'	22:DA:976:G:H8	0.74	0.72
22:DA:1011:G:O2'	22:DA:1013:C:H5''	1.90	0.72
22:DA:1153:C:H2'	22:DA:1154:G:C8	2.25	0.72
22:DA:1231:U:H2'	22:DA:1232:G:H8	1.51	0.72
22:DA:1827:U:C4'	22:DA:1970:A:O2'	2.38	0.72
22:DA:2210:U:C4'	22:DA:2211:A:H5'	2.20	0.72
22:DA:2720:U:H5''	37:DP:52:ARG:HH21	1.52	0.72
24:DC:94:LEU:HB2	24:DC:100:ARG:HD2	1.71	0.72
25:DD:107:VAL:HG21	25:DD:177:VAL:CG1	2.20	0.72
25:DD:149:ASN:O	25:DD:152:PRO:HD2	1.88	0.72
7:AG:28:ILE:HG13	7:AG:100:MET:HE3	1.70	0.72
22:BA:2327:A:H2'	22:BA:2328:A:C8	2.24	0.72
29:BH:44:ILE:O	29:BH:48:GLU:HB2	1.88	0.72
33:BL:74:THR:CG2	33:BL:107:PHE:HB2	2.19	0.72
43:BV:80:HIS:CD2	43:BV:83:LYS:N	2.57	0.72
44:BW:18:LYS:HA	44:BW:36:ILE:CG1	2.15	0.72
53:CA:523:A:H61	12:CL:49:ARG:HH12	1.35	0.72
53:CA:668:G:O2'	53:CA:669:G:H5'	1.89	0.72
53:CA:1305:G:H22	53:CA:1331:G:H2'	1.55	0.72
2:CB:168:GLU:O	2:CB:172:ILE:HG12	1.90	0.72
3:CC:120:THR:HG22	3:CC:120:THR:O	1.90	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:181:A:C2	22:DA:434:U:H1'	2.22	0.72
22:DA:225:C:H2'	22:DA:226:A:O4'	1.90	0.72
22:DA:616:A:H4'	26:DE:101:TYR:CZ	2.25	0.72
22:DA:876:C:O2	22:DA:876:C:C5'	2.38	0.72
22:DA:1308:A:H2'	22:DA:1309:G:O4'	1.90	0.72
22:DA:1455:G:O2'	22:DA:1456:G:H8	1.73	0.72
22:DA:1716:U:O2'	22:DA:1717:A:H5'	1.88	0.72
30:DI:96:LYS:HE2	30:DI:138:VAL:HG11	1.71	0.72
5:AE:149:PRO:O	5:AE:152:VAL:HG22	1.90	0.72
11:AK:124:LYS:NZ	21:AU:33:ARG:NH2	2.38	0.72
22:BA:1510:G:H2'	22:BA:1511:G:C8	2.23	0.72
27:BF:9:ASP:O	27:BF:10:GLU:HB2	1.87	0.72
30:BI:33:ASN:HD22	30:BI:64:ARG:HH22	1.36	0.72
38:BQ:111:LYS:NZ	39:BR:50:GLY:HA2	2.05	0.72
45:BX:67:LEU:HD13	45:BX:77:TYR:CE1	2.25	0.72
53:CA:157:U:C2'	53:CA:158:G:H5'	2.19	0.72
53:CA:1046:A:N1	53:CA:1213:A:N1	2.38	0.72
53:CA:1071:C:H5''	5:CE:53:ARG:HD2	1.71	0.72
53:CA:1370:G:H5''	9:CI:110:VAL:HG21	1.72	0.72
4:CD:115:GLN:NE2	4:CD:153:ARG:NH2	2.37	0.72
9:CI:18:VAL:HG11	9:CI:82:ILE:HA	1.71	0.72
56:CP:75:ILE:CG2	56:CP:80:LYS:HD2	2.20	0.72
18:CR:19:GLU:CD	18:CR:20:ILE:H	1.97	0.72
22:DA:475:C:H2'	22:DA:476:G:C8	2.25	0.72
22:DA:538:A:H5''	31:DJ:7:LYS:NZ	2.04	0.72
22:DA:674:G:O3'	26:DE:60:TRP:HH2	1.72	0.72
22:DA:1071:G:O2'	22:DA:1072:C:H5'	1.88	0.72
57:DB:44:G:H3'	58:DF:91:ARG:NE	2.05	0.72
34:DM:119:LEU:O	34:DM:119:LEU:HD23	1.89	0.72
37:DP:28:LYS:HG2	37:DP:39:LEU:HD23	1.72	0.72
1:AA:914:A:H2'	1:AA:915:A:H8	1.52	0.72
22:BA:39:G:H2'	22:BA:40:U:C6	2.25	0.72
22:BA:100:U:H4'	22:BA:101:A:O5'	1.90	0.72
22:BA:303:G:H2'	22:BA:304:U:C6	2.24	0.72
22:BA:747:U:O2	22:BA:2014:A:H1'	1.90	0.72
22:BA:1063:G:H2'	22:BA:1064:C:C6	2.25	0.72
22:BA:1676:A:H2	22:BA:1993:U:H5'	1.53	0.72
22:BA:1815:A:H1'	22:BA:1817:G:C8	2.24	0.72
22:BA:2391:G:O2'	22:BA:2424:C:N4	2.22	0.72
23:BB:45:A:H2'	23:BB:46:A:C8	2.25	0.72
23:BB:90:C:H5''	23:BB:90:C:C6	2.18	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:73:SER:CA	28:BG:76:ILE:HG22	2.17	0.72
29:BH:130:VAL:HG23	29:BH:131:SER:H	1.55	0.72
38:BQ:111:LYS:HE2	39:BR:50:GLY:HA2	1.71	0.72
41:BT:4:GLU:OE1	41:BT:6:ARG:HG3	1.89	0.72
46:BY:9:LYS:HB3	46:BY:12:GLU:CG	2.19	0.72
6:CF:25:TYR:O	6:CF:29:ILE:HD13	1.89	0.72
9:CI:35:GLU:HA	9:CI:39:GLY:HA3	1.71	0.72
10:CJ:84:VAL:CG2	10:CJ:85:ASP:H	1.92	0.72
12:CL:6:LEU:HA	12:CL:9:LYS:O	1.89	0.72
12:CL:72:ASN:HD22	12:CL:72:ASN:H	1.35	0.72
14:CN:27:LYS:HD2	14:CN:27:LYS:C	2.15	0.72
21:CU:33:ARG:HH12	21:CU:34:ARG:HD3	1.55	0.72
22:DA:1935:G:H1	22:DA:1962:C:H2'	1.54	0.72
22:DA:2054:A:C2	22:DA:2616:C:N3	2.58	0.72
22:DA:2147:A:OP1	22:DA:2147:A:H4'	1.89	0.72
57:DB:52:A:N6	36:DO:33:ARG:HE	1.88	0.72
31:DJ:56:VAL:CG2	31:DJ:124:VAL:HG23	2.19	0.72
31:DJ:64:VAL:CG2	31:DJ:68:LYS:HG3	2.19	0.72
35:DN:63:ARG:O	35:DN:67:PHE:HB2	1.90	0.72
1:AA:128:G:O2'	1:AA:129:A:H5'	1.90	0.71
1:AA:372:C:H4'	1:AA:373:A:OP1	1.88	0.71
20:AT:27:MET:HE1	20:AT:57:VAL:CG2	2.15	0.71
22:BA:533:G:H2'	22:BA:534:U:C6	2.25	0.71
22:BA:2429:G:OP1	62:BA:3692:HOH:O	2.08	0.71
22:BA:2466:C:H5'	52:B4:5:ALA:HB3	1.71	0.71
25:BD:45:TYR:N	25:BD:45:TYR:CD1	2.49	0.71
26:BE:95:LYS:O	26:BE:96:VAL:HB	1.89	0.71
29:BH:27:ARG:NH1	29:BH:38:PRO:HG3	2.04	0.71
36:BO:75:GLY:HA2	36:BO:106:LEU:CD1	2.19	0.71
45:BX:39:VAL:HG21	45:BX:42:GLU:HB2	1.71	0.71
51:B3:21:PHE:HB2	51:B3:49:VAL:HG11	1.70	0.71
53:CA:456:A:H2'	53:CA:457:G:C8	2.25	0.71
53:CA:1264:U:H2'	53:CA:1265:C:H6	1.55	0.71
20:CT:26:MET:C	20:CT:26:MET:HE2	2.15	0.71
22:DA:526:A:C6	22:DA:2626:C:H4'	2.24	0.71
22:DA:1783:A:H5'	22:DA:2608:G:H4'	1.72	0.71
22:DA:2056:G:N2	48:D0:1:ALA:N	2.38	0.71
22:DA:2210:U:H4'	22:DA:2211:A:H5'	1.68	0.71
37:DP:83:ILE:HD13	37:DP:83:ILE:O	1.89	0.71
38:DQ:74:SER:O	38:DQ:78:PHE:HB2	1.90	0.71
44:DW:67:LYS:HB3	44:DW:80:SER:HB2	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:430:A:OP1	4:AD:8:LEU:HB2	1.90	0.71
1:AA:1094:G:HO2'	1:AA:1095:U:P	2.13	0.71
1:AA:1239:A:H4'	1:AA:1240:U:H5'	1.72	0.71
2:AB:15:PHE:O	2:AB:40:ILE:HG12	1.89	0.71
2:AB:108:GLN:O	2:AB:110:ILE:CA	2.38	0.71
5:AE:110:MET:HE3	5:AE:139:THR:HG21	1.70	0.71
7:AG:112:ASP:HB2	7:AG:118:ARG:HG2	1.70	0.71
22:BA:817:C:C2'	22:BA:818:G:H5'	2.19	0.71
22:BA:1071:G:H1'	22:BA:1089:A:C8	2.25	0.71
22:BA:1321:A:H2'	22:BA:1322:A:H8	1.55	0.71
41:BT:14:PRO:HA	41:BT:32:LEU:HB3	1.70	0.71
53:CA:213:G:H2'	53:CA:214:C:C6	2.24	0.71
53:CA:328:C:H2'	53:CA:328:C:O2	1.88	0.71
53:CA:464:U:O4	53:CA:466:A:H4'	1.89	0.71
53:CA:538:G:H5''	12:CL:110:LYS:HB2	1.72	0.71
53:CA:987:G:C2	53:CA:988:G:C5	2.78	0.71
2:CB:160:LEU:CD1	2:CB:180:ILE:HG21	2.20	0.71
3:CC:148:ILE:HD13	3:CC:201:ILE:CG1	2.19	0.71
55:CM:106:ARG:HA	55:CM:110:GLY:O	1.91	0.71
22:DA:1662:U:C2'	22:DA:1663:G:H5''	2.18	0.71
22:DA:2752:C:H2'	22:DA:2753:A:H8	1.53	0.71
41:DT:45:ALA:HA	41:DT:48:GLN:CG	2.20	0.71
43:DV:72:VAL:HA	43:DV:92:VAL:O	1.89	0.71
43:DV:80:HIS:CD2	43:DV:83:LYS:H	2.07	0.71
46:DY:57:LEU:HD13	46:DY:57:LEU:O	1.90	0.71
50:D2:5:PHE:HZ	50:D2:12:ARG:HH11	1.38	0.71
1:AA:204:G:C1'	1:AA:465:A:C2	2.73	0.71
1:AA:1055:A:H1'	3:AC:155:ARG:HH21	1.55	0.71
2:AB:149:GLY:O	2:AB:153:MET:HE3	1.89	0.71
3:AC:32:LEU:HD21	14:AN:92:ILE:HG12	1.71	0.71
4:AD:16:THR:HG22	4:AD:17:ASP:N	2.04	0.71
15:AO:9:LYS:O	15:AO:13:GLU:HG3	1.91	0.71
20:AT:77:ASN:HD22	20:AT:78:LEU:H	1.38	0.71
22:BA:141:G:N1	41:BT:2:ILE:HG23	2.06	0.71
22:BA:726:G:O2'	22:BA:727:A:P	2.47	0.71
22:BA:2496:C:OP1	34:BM:82:MET:HB2	1.91	0.71
24:BC:170:TYR:CD2	24:BC:184:GLU:HA	2.24	0.71
34:BM:5:LYS:NZ	34:BM:5:LYS:HB3	2.05	0.71
39:BR:24:LYS:HA	39:BR:94:THR:HG23	1.71	0.71
42:BU:85:ARG:HA	42:BU:91:LYS:O	1.89	0.71
53:CA:173:U:H5''	53:CA:174:A:OP2	1.90	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:505:G:H2'	53:CA:506:G:H8	1.55	0.71
53:CA:508:U:H4'	53:CA:509:A:OP1	1.89	0.71
53:CA:748:G:H2'	53:CA:749:A:H8	1.54	0.71
53:CA:1127:G:O2'	53:CA:1128:C:C5'	2.38	0.71
53:CA:1450:U:H4'	53:CA:1451:U:H5	1.52	0.71
4:CD:55:ARG:HA	4:CD:55:ARG:NH1	2.03	0.71
14:CN:1:ALA:HA	14:CN:67:GLY:O	1.89	0.71
20:CT:54:GLN:N	20:CT:55:PRO:HD2	2.06	0.71
22:DA:30:G:OP1	38:DQ:4:LYS:HG3	1.90	0.71
22:DA:33:C:O2'	22:DA:34:U:C5'	2.36	0.71
22:DA:67:U:H2'	22:DA:68:G:H8	1.55	0.71
22:DA:668:A:H2'	22:DA:670:A:N6	2.00	0.71
22:DA:782:A:N7	24:DC:219:VAL:HG21	2.05	0.71
22:DA:923:G:H1'	44:DW:23:LYS:HZ1	1.55	0.71
22:DA:960:A:H2'	22:DA:962:G:H5'	1.69	0.71
22:DA:1181:U:H2'	22:DA:1182:G:C8	2.23	0.71
26:DE:129:PRO:HD3	26:DE:156:ASN:OD1	1.90	0.71
33:DL:79:LEU:HD22	33:DL:115:GLU:O	1.90	0.71
34:DM:41:LEU:HD23	34:DM:46:ILE:CG2	2.19	0.71
1:AA:175:C:O2'	1:AA:176:C:H5'	1.90	0.71
2:AB:117:GLU:HA	2:AB:120:SER:HB2	1.72	0.71
4:AD:31:CYS:O	4:AD:32:LYS:HB2	1.89	0.71
22:BA:216:A:H2'	22:BA:217:A:C8	2.26	0.71
22:BA:1471:G:H2'	22:BA:1472:C:C6	2.24	0.71
22:BA:1486:U:H2'	22:BA:1487:U:C6	2.26	0.71
25:BD:105:LYS:N	25:BD:106:LYS:HD2	2.06	0.71
39:BR:16:GLU:HA	39:BR:98:ILE:CG2	2.20	0.71
45:BX:38:TRP:HB2	45:BX:45:PHE:HE2	1.55	0.71
53:CA:451:A:H4'	53:CA:452:A:O5'	1.90	0.71
53:CA:1045:C:C2'	53:CA:1046:A:H5'	2.20	0.71
53:CA:1215:G:HO2'	53:CA:1216:A:H8	1.35	0.71
2:CB:209:VAL:O	2:CB:213:LEU:HB2	1.90	0.71
10:CJ:5:ARG:CG	10:CJ:79:PRO:HG3	2.20	0.71
14:CN:47:LEU:O	14:CN:50:LEU:HG	1.88	0.71
19:CS:28:LYS:O	19:CS:30:LEU:HD12	1.90	0.71
22:DA:158:U:H1'	22:DA:169:G:N2	2.04	0.71
22:DA:716:A:C3'	22:DA:717:C:H5''	2.20	0.71
22:DA:867:C:O2'	22:DA:868:U:H5'	1.90	0.71
22:DA:1063:G:O2'	22:DA:1064:C:C6	2.42	0.71
22:DA:1390:U:O2'	22:DA:1391:U:H5'	1.90	0.71
22:DA:1555:G:N2	22:DA:1556:C:C2	2.58	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1567:G:H5''	24:DC:84:PRO:HB3	1.73	0.71
22:DA:2666:C:H2'	22:DA:2667:C:C5'	2.21	0.71
57:DB:45:A:OP1	58:DF:91:ARG:HD2	1.90	0.71
34:DM:53:MET:HE1	34:DM:103:TYR:CG	2.24	0.71
38:DQ:40:LYS:CD	38:DQ:44:TYR:HE2	2.02	0.71
38:DQ:42:GLY:O	38:DQ:45:ALA:HB3	1.89	0.71
39:DR:68:ARG:HD2	39:DR:92:TRP:CZ2	2.24	0.71
41:DT:29:THR:CB	41:DT:86:THR:H	2.04	0.71
1:AA:57:G:H2'	1:AA:58:C:C6	2.26	0.71
10:AJ:29:ALA:HB1	10:AJ:36:VAL:CG2	2.18	0.71
10:AJ:52:LEU:HD23	10:AJ:62:ARG:HG2	1.71	0.71
22:BA:588:U:H2'	22:BA:589:U:C6	2.25	0.71
22:BA:729:G:H2'	22:BA:1775:U:H1'	1.73	0.71
22:BA:1290:C:H2'	22:BA:1291:C:H6	1.56	0.71
24:BC:140:VAL:HG13	24:BC:189:ALA:HB1	1.72	0.71
25:BD:114:LYS:NZ	25:BD:116:LYS:HE2	2.05	0.71
28:BG:148:ARG:HD2	28:BG:163:TYR:HE2	1.53	0.71
41:BT:86:THR:O	41:BT:87:LEU:HD23	1.90	0.71
53:CA:282:A:H2'	53:CA:283:U:C6	2.24	0.71
53:CA:486:U:O2'	53:CA:487:A:H5'	1.89	0.71
22:DA:1071:G:N7	22:DA:1089:A:C6	2.59	0.71
22:DA:1956:U:O2	22:DA:1985:C:H4'	1.91	0.71
22:DA:1973:G:C5	22:DA:1974:C:C5	2.78	0.71
22:DA:2259:U:O2'	22:DA:2260:C:H6	1.73	0.71
57:DB:38:C:O2'	57:DB:39:A:H5'	1.90	0.71
34:DM:72:PRO:O	34:DM:73:ILE:HB	1.90	0.71
37:DP:88:ARG:HH11	37:DP:112:ARG:HH21	1.38	0.71
39:DR:49:ILE:HB	39:DR:51:VAL:O	1.91	0.71
20:AT:28:ARG:HA	20:AT:31:ILE:HG13	1.72	0.71
20:AT:34:VAL:HG11	20:AT:78:LEU:HD22	1.73	0.71
22:BA:302:C:O2'	22:BA:303:G:H5'	1.91	0.71
22:BA:725:G:C6	22:BA:726:G:N1	2.58	0.71
22:BA:2414:G:C2'	22:BA:2415:G:H5'	2.20	0.71
25:BD:121:THR:O	25:BD:122:VAL:HB	1.90	0.71
26:BE:12:LEU:O	26:BE:13:THR:HB	1.90	0.71
31:BJ:64:VAL:CG1	31:BJ:68:LYS:HB2	2.21	0.71
31:BJ:95:ARG:O	31:BJ:95:ARG:HG3	1.90	0.71
36:BO:17:LYS:HD3	36:BO:17:LYS:O	1.91	0.71
38:BQ:82:LEU:HD23	38:BQ:112:ALA:HB2	1.71	0.71
39:BR:25:LEU:H	39:BR:94:THR:HG21	1.55	0.71
51:B3:56:LEU:CD2	51:B3:56:LEU:N	2.52	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:532:A:C8	3:CC:192:TYR:HE2	2.08	0.71
53:CA:563:A:H2'	53:CA:563:A:N3	2.02	0.71
53:CA:613:C:H2'	53:CA:614:C:C6	2.25	0.71
53:CA:701:U:H4'	53:CA:702:A:H5''	1.71	0.71
53:CA:808:C:O2'	53:CA:809:G:H5'	1.91	0.71
53:CA:877:G:O2'	53:CA:878:A:H5'	1.90	0.71
53:CA:913:A:H4'	53:CA:914:A:O5'	1.89	0.71
53:CA:1046:A:C2'	53:CA:1047:G:O5'	2.38	0.71
53:CA:1293:C:H2'	53:CA:1294:G:H8	1.55	0.71
4:CD:115:GLN:NE2	4:CD:153:ARG:HH22	1.88	0.71
10:CJ:25:ILE:HG22	10:CJ:25:ILE:O	1.90	0.71
56:CP:78:VAL:C	56:CP:80:LYS:H	1.98	0.71
22:DA:304:U:O2'	22:DA:305:C:H6	1.73	0.71
22:DA:1700:A:H2'	22:DA:1701:A:O4'	1.91	0.71
57:DB:5:U:H2'	57:DB:6:G:C8	2.25	0.71
32:DK:60:ALA:HA	32:DK:87:LEU:CD2	2.20	0.71
1:AA:1124:G:O2'	10:AJ:40:ILE:HD13	1.90	0.71
1:AA:1411:C:O2'	1:AA:1412:C:H5'	1.88	0.71
7:AG:110:ARG:NH1	7:AG:122:GLU:HG2	2.05	0.71
44:BW:58:LEU:HD13	44:BW:58:LEU:N	2.05	0.71
47:BZ:29:ARG:O	47:BZ:30:ARG:HG3	1.91	0.71
52:B4:9:LYS:HD3	52:B4:9:LYS:N	2.01	0.71
53:CA:818:G:O2'	53:CA:819:A:H5''	1.91	0.71
2:CB:127:LYS:HE2	2:CB:136:ARG:NH2	2.05	0.71
6:CF:54:LEU:HD12	6:CF:56:LYS:O	1.90	0.71
9:CI:48:ARG:C	9:CI:50:PRO:HD2	2.15	0.71
10:CJ:15:HIS:CA	10:CJ:18:ILE:HG22	2.17	0.71
19:CS:35:ARG:HH21	19:CS:51:HIS:HD2	1.37	0.71
22:DA:1062:G:H2'	22:DA:1070:A:OP1	1.89	0.71
22:DA:1311:G:H21	22:DA:1603:A:H62	1.35	0.71
22:DA:2837:A:H2'	22:DA:2838:G:C8	2.25	0.71
57:DB:12:C:H5''	57:DB:15:A:N6	2.04	0.71
26:DE:149:ILE:HG23	26:DE:188:MET:CB	2.19	0.71
58:DF:39:VAL:HG22	58:DF:49:LEU:CG	2.19	0.71
32:DK:118:LEU:O	32:DK:120:PRO:HD2	1.89	0.71
1:AA:841:C:C2	1:AA:843:U:H5'	2.26	0.71
4:AD:61:ARG:NH1	4:AD:68:GLU:HG2	2.06	0.71
7:AG:4:ARG:HA	7:AG:4:ARG:HE	1.55	0.71
17:AQ:12:VAL:CB	17:AQ:21:VAL:HG22	2.21	0.71
22:BA:2689:U:H4'	22:BA:2690:U:OP2	1.87	0.71
22:BA:2804:U:H2'	22:BA:2805:C:H6	1.56	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:101:ILE:CG2	33:BL:102:GLY:N	2.53	0.71
39:BR:61:ALA:HB2	39:BR:98:ILE:HA	1.72	0.71
53:CA:876:C:C1'	8:CH:11:THR:HG21	2.20	0.71
53:CA:1140:C:H2'	53:CA:1141:C:C5	2.26	0.71
53:CA:1378:C:H3'	53:CA:1379:G:C5'	2.13	0.71
3:CC:36:PHE:CE1	14:CN:91:GLU:HB3	2.26	0.71
54:CG:128:GLU:HG3	54:CG:130:LYS:H	1.56	0.71
9:CI:51:LEU:HD11	9:CI:82:ILE:HG22	1.72	0.71
22:DA:638:G:O2'	22:DA:639:U:O4'	2.08	0.71
22:DA:922:C:H1'	44:DW:22:VAL:CG2	2.17	0.71
22:DA:1469:A:H2'	22:DA:1470:A:H8	1.56	0.71
22:DA:2461:A:H1'	22:DA:2492:U:C2	2.26	0.71
22:DA:2507:C:H1'	22:DA:2583:G:N2	2.05	0.71
24:DC:79:ARG:HD3	24:DC:81:GLU:OE1	1.89	0.71
25:DD:36:GLN:CG	25:DD:38:LYS:HZ1	2.01	0.71
29:DH:41:LYS:H	29:DH:44:ILE:HG23	1.56	0.71
35:DN:103:ARG:HB2	35:DN:110:MET:HG3	1.71	0.71
38:DQ:65:ASN:HA	38:DQ:75:TYR:HB2	1.71	0.71
51:D3:22:LYS:H	51:D3:48:MET:CB	2.02	0.71
1:AA:537:G:H5''	12:AL:109:ARG:HH12	1.56	0.71
1:AA:1303:C:O2'	1:AA:1304:G:C5'	2.39	0.71
16:AP:19:VAL:HG22	16:AP:36:VAL:HG12	1.73	0.71
22:BA:509:C:H5''	22:BA:509:C:H6	1.55	0.71
22:BA:2292:U:H2'	22:BA:2293:G:H8	1.54	0.71
22:BA:2328:A:H2'	22:BA:2329:U:H6	1.53	0.71
24:BC:108:GLY:O	24:BC:109:LEU:HD22	1.91	0.71
26:BE:97:ASN:HB2	26:BE:100:MET:HG3	1.73	0.71
26:BE:134:LEU:CD2	26:BE:161:ALA:HB2	2.21	0.71
36:BO:53:THR:HB	36:BO:65:THR:HG22	1.71	0.71
43:BV:29:ILE:HG12	43:BV:30:ILE:N	2.06	0.71
53:CA:93:U:H2'	53:CA:95:C:H5	1.55	0.71
53:CA:1219:A:OP1	14:CN:52:ARG:HG3	1.90	0.71
8:CH:100:ILE:C	8:CH:100:ILE:HD12	2.16	0.71
22:DA:8:C:C2'	22:DA:9:G:H5'	2.21	0.71
22:DA:686:U:H6	22:DA:788:A:N1	1.89	0.71
22:DA:786:C:C2'	22:DA:787:C:H5'	2.21	0.71
22:DA:1237:A:H2	22:DA:1238:G:H1'	1.53	0.71
58:DF:7:TYR:O	58:DF:8:LYS:HG3	1.91	0.71
31:DJ:29:ALA:CB	31:DJ:108:MET:HE3	2.21	0.71
40:DS:33:LEU:CA	40:DS:36:LEU:HD23	2.21	0.71
48:D0:28:SER:HB3	48:D0:39:ARG:NE	2.06	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:433:G:H2'	1:AA:434:U:H5'	1.70	0.71
1:AA:652:U:O4	1:AA:752:G:H2'	1.91	0.71
1:AA:842:U:H2'	1:AA:844:G:P	2.31	0.71
1:AA:919:A:O2'	1:AA:920:U:H5'	1.91	0.71
1:AA:1226:C:H4'	1:AA:1227:A:OP1	1.89	0.71
1:AA:1227:A:N3	1:AA:1227:A:H2'	2.05	0.71
4:AD:54:LEU:O	4:AD:54:LEU:HD23	1.90	0.71
6:AF:38:ARG:HG3	6:AF:39:LEU:N	2.04	0.71
9:AI:56:MET:CE	9:AI:57:VAL:H	2.04	0.71
22:BA:215:G:H4'	22:BA:216:A:OP1	1.91	0.71
31:BJ:64:VAL:HG13	31:BJ:68:LYS:HB2	1.72	0.71
48:B0:39:ARG:HB2	48:B0:39:ARG:NH1	2.04	0.71
53:CA:277:C:O2'	53:CA:278:G:H5'	1.91	0.71
53:CA:1064:G:O2'	53:CA:1190:G:N2	2.24	0.71
6:CF:6:ILE:H	6:CF:6:ILE:HD12	1.55	0.71
55:CM:13:HIS:HB2	55:CM:43:LYS:HE2	1.72	0.71
19:CS:46:LEU:HD23	19:CS:46:LEU:H	1.53	0.71
22:DA:841:G:O2'	22:DA:842:U:H5'	1.91	0.71
22:DA:2654:A:H4'	22:DA:2655:G:OP1	1.91	0.71
57:DB:81:G:C5	57:DB:82:U:C5	2.79	0.71
38:DQ:46:TYR:CZ	38:DQ:50:ARG:NH1	2.59	0.71
42:DU:3:LYS:HD3	42:DU:82:VAL:HG21	1.72	0.71
1:AA:111:G:O6	1:AA:330:C:N4	2.24	0.70
1:AA:205:A:OP1	1:AA:205:A:H4'	1.89	0.70
1:AA:596:A:H2'	1:AA:597:G:H8	1.56	0.70
10:AJ:66:GLU:HG2	14:AN:98:ALA:HB2	1.71	0.70
18:AR:56:ARG:O	18:AR:60:ARG:HB2	1.91	0.70
21:AU:33:ARG:HD3	21:AU:34:ARG:HG3	1.72	0.70
22:BA:142:A:H2'	22:BA:143:C:C6	2.26	0.70
22:BA:1885:A:H2'	22:BA:1886:U:H6	1.56	0.70
22:BA:2420:C:OP1	51:B3:33:THR:HB	1.91	0.70
28:BG:66:THR:O	28:BG:70:LEU:HG	1.91	0.70
31:BJ:77:HIS:CD2	31:BJ:79:GLY:H	2.06	0.70
33:BL:93:ASN:HD22	33:BL:93:ASN:C	1.98	0.70
53:CA:878:A:O2'	53:CA:879:C:H5'	1.91	0.70
53:CA:979:C:O2'	53:CA:980:C:H5'	1.91	0.70
3:CC:41:TYR:HE1	3:CC:89:VAL:HG12	1.56	0.70
8:CH:17:GLN:NE2	8:CH:69:ALA:HB1	2.06	0.70
10:CJ:81:GLU:O	10:CJ:86:ALA:HB3	1.90	0.70
12:CL:27:PRO:HB2	12:CL:28:GLN:OE1	1.91	0.70
22:DA:1132:U:H5'	31:DJ:84:ILE:HD13	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1734:G:O2'	22:DA:1735:A:H8	1.73	0.70
22:DA:2636:C:H2'	22:DA:2637:U:C6	2.25	0.70
57:DB:86:G:C2'	57:DB:87:U:H5''	2.21	0.70
26:DE:60:TRP:HZ2	26:DE:71:GLY:HA2	1.54	0.70
29:DH:61:VAL:HG13	29:DH:62:LEU:N	2.06	0.70
29:DH:80:ILE:HB	29:DH:101:ASP:OD2	1.91	0.70
38:DQ:46:TYR:HD1	39:DR:74:ILE:CG2	2.03	0.70
40:DS:84:ARG:HB3	40:DS:96:ILE:HG23	1.72	0.70
44:DW:37:VAL:HG23	44:DW:38:ARG:HH11	1.56	0.70
1:AA:1258:G:O2'	1:AA:1259:C:H6	1.73	0.70
10:AJ:66:GLU:CG	14:AN:98:ALA:HB2	2.21	0.70
11:AK:110:THR:HG22	21:AU:4:LYS:CB	2.21	0.70
22:BA:638:G:C5	22:BA:651:G:C2	2.78	0.70
22:BA:1866:A:O2'	22:BA:1867:G:H5'	1.91	0.70
22:BA:2555:U:C5	22:BA:2556:C:C6	2.79	0.70
24:BC:246:PRO:HG2	24:BC:247:TRP:CH2	2.25	0.70
35:BN:38:LEU:HB3	35:BN:39:PRO:HD3	1.73	0.70
41:BT:61:LEU:HD12	41:BT:61:LEU:O	1.91	0.70
53:CA:268:U:H2'	53:CA:269:C:C6	2.26	0.70
53:CA:1365:G:HO2'	53:CA:1366:C:H6	1.36	0.70
53:CA:1365:G:O2'	53:CA:1366:C:C6	2.44	0.70
3:CC:176:THR:HG22	3:CC:178:ARG:HG3	1.73	0.70
6:CF:47:LEU:HD13	6:CF:51:ILE:HD12	1.72	0.70
9:CI:61:ASP:O	9:CI:62:LEU:HD22	1.90	0.70
12:CL:36:VAL:HG23	12:CL:36:VAL:O	1.91	0.70
15:CO:79:GLN:HE21	15:CO:83:ARG:HH21	1.39	0.70
22:DA:846:U:O2'	22:DA:847:U:H5''	1.90	0.70
22:DA:1311:G:H21	22:DA:1603:A:N6	1.89	0.70
22:DA:1438:U:H2'	22:DA:1439:A:O4'	1.91	0.70
22:DA:2310:C:H2'	22:DA:2311:A:H5''	1.73	0.70
22:DA:2345:G:H4'	22:DA:2346:A:C5'	2.20	0.70
50:D2:31:LEU:CA	50:D2:34:ARG:HB2	2.18	0.70
52:D4:36:ARG:HG2	52:D4:37:GLN:N	2.05	0.70
1:AA:443:C:C2'	1:AA:444:G:H5'	2.22	0.70
1:AA:792:A:O2'	1:AA:794:A:N7	2.21	0.70
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.06	0.70
5:AE:82:HIS:HB2	5:AE:83:PRO:HD2	1.73	0.70
13:AM:40:GLU:HG3	13:AM:41:ASP:H	1.56	0.70
22:BA:962:G:O2'	22:BA:963:U:H5'	1.92	0.70
42:BU:38:ILE:HG22	42:BU:39:ASN:H	1.55	0.70
47:BZ:29:ARG:HH21	47:BZ:29:ARG:HG3	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:892:A:O2'	53:CA:893:C:H5'	1.91	0.70
53:CA:1140:C:H2'	53:CA:1141:C:H5	1.56	0.70
53:CA:1533:C:C2'	53:CA:1534:A:H5''	2.19	0.70
2:CB:13:VAL:HG23	2:CB:211:LEU:HD22	1.72	0.70
9:CI:12:LYS:HG2	9:CI:12:LYS:O	1.92	0.70
10:CJ:52:LEU:CD2	10:CJ:62:ARG:HG2	2.20	0.70
20:CT:30:PHE:HE2	20:CT:52:GLU:HG2	1.56	0.70
22:DA:878:A:H4'	22:DA:898:C:N4	2.07	0.70
22:DA:1734:G:H2'	22:DA:1735:A:H8	1.55	0.70
22:DA:2756:U:C1'	22:DA:2757:A:H5''	2.21	0.70
24:DC:77:VAL:HG23	24:DC:111:ALA:HA	1.74	0.70
24:DC:144:GLU:HG3	24:DC:151:GLY:CA	2.20	0.70
26:DE:48:THR:O	26:DE:52:VAL:HG23	1.90	0.70
26:DE:75:SER:O	26:DE:78:TRP:HB2	1.91	0.70
36:DO:30:ARG:HA	36:DO:35:ILE:HD13	1.73	0.70
43:DV:26:PHE:HE2	43:DV:42:LEU:HD12	1.56	0.70
1:AA:107:G:C2'	1:AA:108:G:H5'	2.21	0.70
1:AA:462:G:H3'	1:AA:463:U:H6	1.56	0.70
1:AA:486:U:H2'	1:AA:487:A:C8	2.26	0.70
2:AB:20:ARG:HA	2:AB:20:ARG:CZ	2.21	0.70
20:AT:53:MET:CE	20:AT:57:VAL:HG21	2.22	0.70
22:BA:95:A:O2'	46:BY:41:HIS:HD2	1.75	0.70
22:BA:936:A:H2'	22:BA:937:C:C6	2.27	0.70
22:BA:2195:U:H2'	22:BA:2196:C:H6	1.55	0.70
34:BM:13:HIS:O	34:BM:14:LYS:HB2	1.91	0.70
41:BT:61:LEU:C	41:BT:61:LEU:CD1	2.64	0.70
50:B2:43:THR:O	50:B2:44:VAL:CB	2.40	0.70
53:CA:1272:G:H2'	53:CA:1273:C:H5'	1.73	0.70
53:CA:1346:A:C8	53:CA:1348:U:N3	2.60	0.70
53:CA:1471:U:O2'	53:CA:1472:U:H5'	1.90	0.70
15:CO:47:LYS:HD2	15:CO:47:LYS:N	2.05	0.70
56:CP:22:ALA:HA	56:CP:33:ILE:CG1	2.19	0.70
22:DA:45:G:C5'	22:DA:46:G:H5'	2.22	0.70
22:DA:374:A:O2'	22:DA:375:G:O4'	2.06	0.70
22:DA:546:U:H5'	22:DA:547:A:OP1	1.91	0.70
22:DA:1079:C:H41	22:DA:1088:A:C5'	1.95	0.70
22:DA:1734:G:H2'	22:DA:1735:A:C8	2.25	0.70
22:DA:2235:G:H2'	22:DA:2236:U:H6	1.55	0.70
22:DA:2336:A:N7	44:DW:40:ARG:NH2	2.38	0.70
22:DA:2360:G:H5''	22:DA:2361:G:OP2	1.92	0.70
22:DA:2511:U:C2'	22:DA:2512:C:H5'	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:68:ARG:HH12	24:DC:115:ILE:HD12	1.56	0.70
26:DE:61:ARG:HE	26:DE:65:THR:HB	1.54	0.70
38:DQ:40:LYS:HD2	38:DQ:44:TYR:HE2	1.55	0.70
39:DR:66:HIS:CD2	39:DR:94:THR:HG22	2.26	0.70
40:DS:32:ALA:O	40:DS:33:LEU:HB2	1.91	0.70
44:DW:39:GLN:HG2	44:DW:42:THR:HB	1.71	0.70
1:AA:484:G:H4'	1:AA:485:U:O5'	1.90	0.70
4:AD:122:ILE:HD13	4:AD:122:ILE:N	2.05	0.70
10:AJ:35:GLN:HG2	10:AJ:77:VAL:HB	1.73	0.70
20:AT:68:LYS:HB2	20:AT:68:LYS:HZ3	1.55	0.70
22:BA:1000:A:H62	22:BA:1154:G:H2'	1.56	0.70
22:BA:2032:G:H4'	62:BA:3474:HOH:O	1.92	0.70
25:BD:98:VAL:O	25:BD:99:GLU:C	2.34	0.70
31:BJ:88:THR:HG23	31:BJ:91:GLU:H	1.56	0.70
35:BN:79:LEU:O	35:BN:80:PHE:HB2	1.90	0.70
38:BQ:63:ARG:HH12	38:BQ:96:ASP:CB	2.04	0.70
39:BR:90:ARG:O	39:BR:91:GLN:HB3	1.90	0.70
41:BT:29:THR:CA	41:BT:86:THR:HA	2.21	0.70
44:BW:23:LYS:HG3	44:BW:24:ARG:O	1.91	0.70
44:BW:24:ARG:HD2	44:BW:24:ARG:C	2.16	0.70
52:B4:9:LYS:CD	52:B4:9:LYS:N	2.53	0.70
53:CA:243:A:C4'	53:CA:244:U:H5'	2.20	0.70
53:CA:801:U:H2'	53:CA:802:A:C8	2.26	0.70
53:CA:1159:U:H5	53:CA:1182:G:O2'	1.72	0.70
53:CA:1409:C:H5'	22:DA:1916:A:N1	2.07	0.70
53:CA:1458:G:O2'	20:CT:22:SER:HB2	1.90	0.70
5:CE:75:LEU:HD13	5:CE:79:THR:O	1.90	0.70
19:CS:52:ASN:ND2	19:CS:54:ARG:HG2	2.07	0.70
22:DA:222:A:N6	22:DA:232:G:H1'	2.07	0.70
22:DA:226:A:H4'	22:DA:258:G:OP1	1.90	0.70
22:DA:381:G:H5''	45:DX:15:ASN:ND2	2.06	0.70
22:DA:990:A:H61	39:DR:78:ARG:NH1	1.89	0.70
22:DA:1064:C:OP1	30:DI:88:GLY:HA3	1.91	0.70
22:DA:1270:C:H2'	22:DA:1648:U:H5''	1.73	0.70
22:DA:2135:A:H8	22:DA:2135:A:OP2	1.75	0.70
22:DA:2149:U:O2'	22:DA:2150:C:H6	1.73	0.70
22:DA:2506:U:C5	22:DA:2576:G:O6	2.44	0.70
22:DA:2617:U:C2'	22:DA:2618:G:H5'	2.21	0.70
22:DA:2668:G:O2'	22:DA:2669:G:H8	1.74	0.70
29:DH:96:THR:HA	29:DH:113:SER:OG	1.90	0.70
44:DW:18:LYS:HD3	44:DW:19:ARG:HG2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DX:58:ILE:HG12	45:DX:66:VAL:HG21	1.73	0.70
1:AA:1511:G:C5	1:AA:1512:U:C5	2.79	0.70
2:AB:67:LEU:HD22	2:AB:69:VAL:HG23	1.73	0.70
3:AC:14:VAL:O	3:AC:14:VAL:HG23	1.90	0.70
22:BA:13:A:O2'	22:BA:15:G:N7	2.24	0.70
22:BA:919:U:C4	22:BA:920:A:N7	2.60	0.70
22:BA:1653:G:H1	35:BN:11:ASN:ND2	1.89	0.70
28:BG:163:TYR:O	28:BG:164:ALA:CB	2.39	0.70
31:BJ:3:THR:HG21	38:BQ:60:TRP:HE1	1.55	0.70
33:BL:87:GLY:O	33:BL:89:VAL:N	2.25	0.70
33:BL:110:VAL:CG1	33:BL:111:ILE:N	2.54	0.70
53:CA:432:A:H2'	53:CA:433:G:H5'	1.73	0.70
53:CA:1326:U:H2'	53:CA:1327:C:C6	2.27	0.70
2:CB:76:SER:O	2:CB:79:VAL:HG12	1.91	0.70
6:CF:6:ILE:HD12	6:CF:6:ILE:N	2.07	0.70
54:CG:76:SER:HA	54:CG:85:GLN:HA	1.72	0.70
14:CN:20:PHE:CA	14:CN:24:ALA:HB2	2.22	0.70
14:CN:80:ARG:HH11	14:CN:80:ARG:HG2	1.55	0.70
17:CQ:59:GLU:HG3	17:CQ:75:VAL:HG22	1.72	0.70
22:DA:49:A:H4'	22:DA:50:U:O5'	1.91	0.70
22:DA:1167:C:O2'	22:DA:1168:G:H5'	1.90	0.70
22:DA:2262:U:H5''	44:DW:38:ARG:NH2	2.07	0.70
24:DC:127:ASN:O	24:DC:190:THR:HA	1.91	0.70
26:DE:6:LYS:HB2	26:DE:121:VAL:HG12	1.72	0.70
58:DF:110:ILE:HD13	58:DF:110:ILE:H	1.57	0.70
33:DL:47:ARG:HG2	33:DL:47:ARG:NH2	2.03	0.70
33:DL:141:LYS:HD2	33:DL:142:ILE:N	2.07	0.70
38:DQ:4:LYS:CE	38:DQ:7:VAL:H	2.05	0.70
41:DT:5:GLU:CD	46:DY:18:LEU:HD21	2.17	0.70
42:DU:81:ARG:HB2	42:DU:96:LYS:HD2	1.74	0.70
43:DV:44:HIS:CD2	43:DV:85:LYS:HB2	2.27	0.70
1:AA:1522:U:O2'	1:AA:1523:G:H5'	1.92	0.70
3:AC:137:VAL:HA	3:AC:148:ILE:HD13	1.72	0.70
4:AD:170:LEU:HD12	4:AD:170:LEU:H	1.55	0.70
16:AP:12:LYS:O	16:AP:13:LYS:HB2	1.90	0.70
19:AS:6:LYS:HA	19:AS:6:LYS:CE	2.21	0.70
19:AS:55:GLN:CD	19:AS:56:HIS:H	1.99	0.70
20:AT:77:ASN:HD22	20:AT:78:LEU:N	1.89	0.70
22:BA:448:U:H4'	22:BA:449:A:OP2	1.91	0.70
22:BA:639:U:H2'	22:BA:640:C:C6	2.26	0.70
22:BA:915:C:C2'	22:BA:916:G:H5'	2.21	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2507:C:C3'	22:BA:2508:G:C5'	2.70	0.70
22:BA:2742:G:C2'	22:BA:2743:U:H5'	2.21	0.70
23:BB:90:C:H6	23:BB:90:C:C5'	2.01	0.70
25:BD:51:THR:HG21	25:BD:68:PHE:CE2	2.19	0.70
26:BE:46:GLN:CG	26:BE:87:ALA:H	2.05	0.70
28:BG:3:VAL:O	28:BG:68:ARG:HG3	1.91	0.70
28:BG:15:ASP:CG	28:BG:16:VAL:N	2.49	0.70
39:BR:49:ILE:HG21	39:BR:53:PHE:H	1.57	0.70
43:BV:75:GLN:HA	43:BV:75:GLN:OE1	1.92	0.70
55:CM:95:PRO:HD3	55:CM:108:ARG:CG	2.19	0.70
14:CN:20:PHE:HA	14:CN:24:ALA:HB2	1.73	0.70
19:CS:35:ARG:NH1	19:CS:76:THR:HG22	2.07	0.70
22:DA:45:G:H5'	22:DA:46:G:OP1	1.92	0.70
22:DA:275:C:H2'	22:DA:276:U:O4'	1.91	0.70
22:DA:401:A:H2'	22:DA:402:A:C8	2.27	0.70
22:DA:489:G:H4'	22:DA:490:C:OP1	1.91	0.70
22:DA:852:U:H2'	22:DA:853:C:C6	2.26	0.70
22:DA:1494:A:H2'	22:DA:1495:A:C8	2.27	0.70
24:DC:42:ARG:CZ	24:DC:48:ILE:HD11	2.22	0.70
24:DC:77:VAL:CG2	24:DC:112:GLY:H	2.05	0.70
24:DC:144:GLU:CB	24:DC:187:CYS:HB2	2.20	0.70
25:DD:73:VAL:O	25:DD:74:GLU:HB2	1.91	0.70
58:DF:43:ILE:HG12	58:DF:77:LYS:HD3	1.73	0.70
28:DG:112:VAL:CG1	28:DG:114:HIS:HB3	2.22	0.70
36:DO:31:THR:HG23	36:DO:34:HIS:C	2.17	0.70
38:DQ:101:ASP:HB2	39:DR:2:TYR:OH	1.92	0.70
43:DV:75:GLN:HG3	43:DV:92:VAL:CG1	2.22	0.70
1:AA:158:G:C3'	1:AA:159:G:H5''	2.20	0.70
1:AA:1239:A:N6	1:AA:1299:A:H62	1.89	0.70
1:AA:1338:G:H2'	1:AA:1339:A:H8	1.53	0.70
2:AB:76:SER:HB2	2:AB:92:ASN:HB2	1.71	0.70
3:AC:174:LEU:O	3:AC:174:LEU:HD12	1.91	0.70
5:AE:113:VAL:HG21	5:AE:140:ILE:CD1	2.19	0.70
10:AJ:57:VAL:O	10:AJ:58:ASN:HB2	1.90	0.70
13:AM:10:ASP:CG	13:AM:11:HIS:H	1.99	0.70
22:BA:947:A:O2'	22:BA:984:A:H2	1.75	0.70
22:BA:1113:U:H2'	22:BA:1114:C:H6	1.57	0.70
25:BD:140:HIS:NE2	62:BD:303:HOH:O	2.24	0.70
29:BH:131:SER:HB2	29:BH:139:PHE:HD2	1.57	0.70
53:CA:1250:A:H2'	53:CA:1251:A:O4'	1.91	0.70
2:CB:128:LEU:HB3	2:CB:131:LYS:HB3	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:14:LEU:HD12	5:CE:15:ILE:H	1.55	0.70
12:CL:106:VAL:HB	12:CL:109:ARG:HG3	1.72	0.70
22:DA:191:A:H2'	22:DA:192:C:C6	2.26	0.70
22:DA:228:C:C5'	22:DA:229:C:H5	2.04	0.70
22:DA:747:U:H3'	22:DA:748:G:C5'	2.20	0.70
22:DA:2064:C:O3'	22:DA:2251:G:N2	2.23	0.70
22:DA:2145:C:H3'	22:DA:2147:A:OP2	1.91	0.70
57:DB:16:G:O2'	57:DB:17:C:H5'	1.91	0.70
24:DC:19:VAL:HG12	24:DC:19:VAL:O	1.90	0.70
41:DT:44:LYS:HE2	41:DT:48:GLN:OE1	1.92	0.70
43:DV:30:ILE:HG12	43:DV:91:PHE:CB	2.22	0.70
44:DW:37:VAL:CG2	44:DW:38:ARG:HH11	2.04	0.70
1:AA:275:G:C4	1:AA:276:G:C8	2.80	0.70
1:AA:817:C:H4'	1:AA:818:G:OP1	1.92	0.70
8:AH:87:ARG:O	8:AH:121:GLY:HA3	1.92	0.70
22:BA:1962:C:O2'	22:BA:1964:G:OP2	2.08	0.70
23:BB:28:C:H2'	23:BB:29:A:H5'	1.73	0.70
26:BE:134:LEU:HD21	26:BE:161:ALA:HB2	1.72	0.70
27:BF:33:ILE:HG12	27:BF:155:ILE:HG12	1.73	0.70
31:BJ:73:VAL:CG2	31:BJ:74:TYR:H	2.02	0.70
34:BM:133:LYS:O	34:BM:134:THR:HB	1.91	0.70
38:BQ:63:ARG:NH1	38:BQ:96:ASP:CA	2.41	0.70
53:CA:770:C:O2'	53:CA:771:G:H5'	1.90	0.70
53:CA:1050:G:HO2'	53:CA:1051:C:H6	1.37	0.70
53:CA:1239:A:H3'	54:CG:118:ARG:HH22	1.56	0.70
53:CA:1337:G:H5''	53:CA:1338:G:OP1	1.92	0.70
53:CA:1372:U:H5''	9:CI:71:ILE:CD1	2.22	0.70
53:CA:1480:A:C5	53:CA:1481:U:C5	2.80	0.70
4:CD:109:THR:HG22	4:CD:111:ALA:N	2.06	0.70
17:CQ:13:SER:O	17:CQ:20:ILE:HB	1.91	0.70
22:DA:201:C:C5	22:DA:202:U:C5	2.80	0.70
22:DA:704:G:C2'	22:DA:726:G:H22	2.05	0.70
22:DA:956:G:O4'	34:DM:82:MET:HE1	1.91	0.70
22:DA:1071:G:N7	22:DA:1089:A:C5	2.60	0.70
22:DA:1401:G:C2'	22:DA:1402:U:C6	2.67	0.70
22:DA:1439:A:H1'	22:DA:1553:A:N6	2.07	0.70
22:DA:1510:G:N2	22:DA:1511:G:C4	2.60	0.70
22:DA:2893:A:H4'	22:DA:2894:G:O5'	1.92	0.70
57:DB:42:C:H5	58:DF:65:LEU:HD13	1.55	0.70
24:DC:68:ARG:HH12	24:DC:115:ILE:CD1	2.04	0.70
28:DG:106:LEU:HB2	28:DG:108:PHE:CE1	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:96:THR:O	29:DH:97:ARG:HG3	1.92	0.70
31:DJ:64:VAL:HG13	31:DJ:65:THR:N	2.06	0.70
35:DN:55:ALA:CB	35:DN:79:LEU:HD22	2.21	0.70
1:AA:548:G:H2'	1:AA:549:C:C6	2.26	0.70
4:AD:1:ALA:O	4:AD:67:LEU:HD12	1.91	0.70
6:AF:18:VAL:N	6:AF:19:PRO:HD2	2.06	0.70
7:AG:38:ALA:O	7:AG:42:VAL:HG23	1.92	0.70
9:AI:27:ILE:HG13	9:AI:62:LEU:HD21	1.74	0.70
13:AM:10:ASP:CG	13:AM:11:HIS:N	2.50	0.70
17:AQ:7:LEU:HD23	17:AQ:24:ILE:CD1	2.22	0.70
22:BA:2210:U:H4'	22:BA:2211:A:H5'	1.74	0.70
22:BA:2725:A:O2'	22:BA:2726:A:H2'	1.90	0.70
25:BD:120:GLY:HA2	25:BD:162:ALA:HB2	1.74	0.70
28:BG:73:SER:HA	28:BG:76:ILE:HG21	1.74	0.70
30:BI:89:SER:HB3	30:BI:92:PRO:HG3	1.72	0.70
33:BL:57:LEU:HD22	51:B3:53:ASP:HB3	1.74	0.70
36:BO:51:ALA:HB3	36:BO:78:VAL:HG13	1.73	0.70
37:BP:37:LYS:HD3	37:BP:37:LYS:H	1.57	0.70
37:BP:51:ASN:C	37:BP:52:ARG:HG2	2.17	0.70
42:BU:24:VAL:HG22	42:BU:35:VAL:HG22	1.74	0.70
53:CA:119:A:H4'	53:CA:120:A:O5'	1.92	0.70
53:CA:570:G:H1'	53:CA:820:U:C4	2.27	0.70
53:CA:577:G:O2'	53:CA:578:C:H5'	1.90	0.70
53:CA:951:G:H2'	53:CA:952:U:H6	1.55	0.70
53:CA:1201:A:H1'	53:CA:1202:U:OP2	1.92	0.70
5:CE:59:ILE:O	5:CE:59:ILE:HG13	1.90	0.70
54:CG:148:LYS:NZ	54:CG:148:LYS:HB2	2.06	0.70
15:CO:79:GLN:NE2	15:CO:83:ARG:NH2	2.40	0.70
22:DA:28:A:C6	22:DA:513:A:C8	2.79	0.70
22:DA:82:U:C2'	22:DA:83:A:H5''	2.20	0.70
22:DA:1290:C:O2'	22:DA:1291:C:H6	1.74	0.70
22:DA:1608:A:C8	22:DA:1611:C:N4	2.60	0.70
22:DA:2229:U:H2'	22:DA:2230:G:H8	1.57	0.70
22:DA:2378:A:H2'	22:DA:2379:G:C5'	2.22	0.70
25:DD:116:LYS:HA	35:DN:1:MET:HE1	1.72	0.70
26:DE:111:GLU:HA	26:DE:114:ARG:HE	1.57	0.70
58:DF:35:LEU:HD11	58:DF:153:ILE:HG23	1.74	0.70
32:DK:6:THR:O	32:DK:8:LEU:HD12	1.92	0.70
42:DU:43:LYS:HG2	42:DU:45:GLN:HG2	1.72	0.70
1:AA:642:A:H2'	1:AA:643:C:C6	2.27	0.69
1:AA:723:U:OP1	21:AU:48:LYS:HD3	1.92	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:16:THR:HG22	4:AD:17:ASP:O	1.92	0.69
9:AI:9:GLY:HA2	9:AI:80:HIS:CD2	2.27	0.69
17:AQ:20:ILE:H	17:AQ:47:ASP:CG	1.99	0.69
22:BA:163:C:H6	22:BA:163:C:OP1	1.73	0.69
22:BA:974:G:H8	22:BA:990:A:H62	1.38	0.69
22:BA:1683:U:H2'	22:BA:1684:G:H8	1.56	0.69
25:BD:114:LYS:HE3	25:BD:114:LYS:N	2.06	0.69
25:BD:150:GLN:O	25:BD:150:GLN:HG3	1.88	0.69
27:BF:54:ALA:O	27:BF:57:ALA:HB3	1.92	0.69
32:BK:57:VAL:C	32:BK:58:LEU:HD23	2.17	0.69
53:CA:1134:G:C6	53:CA:1135:U:H1'	2.26	0.69
2:CB:212:TYR:O	2:CB:212:TYR:HD2	1.75	0.69
4:CD:25:ARG:CZ	4:CD:30:LYS:HG2	2.22	0.69
5:CE:103:GLY:HA3	5:CE:120:HIS:O	1.92	0.69
22:DA:201:C:C5	22:DA:202:U:H5	2.09	0.69
22:DA:649:G:H2'	22:DA:650:C:C6	2.27	0.69
22:DA:973:A:H1'	22:DA:1188:U:C5	2.26	0.69
22:DA:1139:G:O2'	22:DA:1140:C:H5'	1.91	0.69
22:DA:1639:C:C3'	22:DA:1640:A:H5''	2.22	0.69
31:DJ:75:TYR:CD1	31:DJ:84:ILE:HD11	2.27	0.69
1:AA:1320:C:H41	19:AS:36:ARG:HG2	1.56	0.69
1:AA:1441:A:N6	1:AA:1461:G:H21	1.90	0.69
3:AC:96:VAL:HB	3:AC:97:PRO:HD2	1.73	0.69
4:AD:129:VAL:HG13	4:AD:131:ILE:HD12	1.72	0.69
5:AE:132:PRO:O	5:AE:136:VAL:HG13	1.91	0.69
5:AE:152:VAL:CA	5:AE:155:LYS:HZ2	2.06	0.69
15:AO:62:ARG:HG2	15:AO:66:LEU:HD12	1.73	0.69
18:AR:66:LEU:O	18:AR:67:LEU:HD23	1.92	0.69
22:BA:2292:U:H2'	22:BA:2293:G:C8	2.28	0.69
22:BA:2801:G:H2'	22:BA:2802:G:H8	1.56	0.69
24:BC:30:ALA:HB3	24:BC:31:PRO:CD	2.22	0.69
24:BC:244:VAL:HG12	24:BC:250:GLN:HA	1.74	0.69
25:BD:107:VAL:HG21	25:BD:177:VAL:CG1	2.23	0.69
26:BE:124:PHE:CD1	26:BE:124:PHE:C	2.69	0.69
29:BH:4:ILE:HG23	29:BH:17:ASP:O	1.93	0.69
30:BI:74:PRO:O	30:BI:77:VAL:HG22	1.93	0.69
31:BJ:77:HIS:HD2	31:BJ:79:GLY:N	1.88	0.69
36:BO:30:ARG:HG2	36:BO:31:THR:N	2.07	0.69
49:B1:8:ILE:HG22	49:B1:9:LYS:N	2.07	0.69
53:CA:1446:A:H2'	53:CA:1447:A:C5'	2.21	0.69
53:CA:1528:U:O2'	53:CA:1529:G:H3'	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:9:LEU:HD23	2:CB:9:LEU:H	1.57	0.69
14:CN:6:LYS:O	14:CN:10:VAL:HG23	1.92	0.69
22:DA:142:A:H2'	22:DA:143:C:H6	1.56	0.69
22:DA:923:G:H1'	44:DW:23:LYS:NZ	2.07	0.69
22:DA:1060:U:O4'	22:DA:1061:U:H2'	1.92	0.69
22:DA:1492:G:C3'	22:DA:1493:C:H5'	2.13	0.69
22:DA:2699:C:H2'	22:DA:2700:A:H8	1.56	0.69
25:DD:151:THR:HG22	25:DD:152:PRO:CD	2.21	0.69
26:DE:196:VAL:HG13	26:DE:200:LEU:HD23	1.73	0.69
28:DG:70:LEU:HD12	28:DG:71:LEU:N	2.07	0.69
28:DG:167:VAL:HG23	28:DG:168:VAL:N	2.06	0.69
44:DW:18:LYS:H	44:DW:36:ILE:HG12	1.57	0.69
44:DW:23:LYS:HD2	44:DW:24:ARG:H	1.56	0.69
1:AA:47:C:H4'	1:AA:48:C:O5'	1.90	0.69
1:AA:224:U:O2'	1:AA:225:C:H5'	1.92	0.69
2:AB:84:LEU:O	2:AB:84:LEU:HG	1.91	0.69
6:AF:11:HIS:CD2	6:AF:13:ASP:H	2.10	0.69
22:BA:1635:A:H2'	22:BA:1636:U:H6	1.58	0.69
22:BA:1809:A:H2'	22:BA:1810:A:C8	2.28	0.69
24:BC:20:ASN:HD22	24:BC:20:ASN:C	2.00	0.69
26:BE:81:GLY:HA2	62:BE:301:HOH:O	1.91	0.69
27:BF:55:ASP:O	27:BF:59:ILE:HG13	1.91	0.69
44:BW:8:SER:O	44:BW:9:THR:HG22	1.91	0.69
49:B1:8:ILE:HD11	49:B1:52:LYS:HB2	1.75	0.69
53:CA:1245:C:H2'	53:CA:1246:A:H8	1.58	0.69
53:CA:1416:G:N2	53:CA:1485:U:H1'	2.07	0.69
54:CG:63:VAL:HG11	54:CG:127:ALA:CB	2.21	0.69
8:CH:68:LYS:HD3	8:CH:69:ALA:N	2.06	0.69
56:CP:21:VAL:HG12	56:CP:33:ILE:HD12	1.73	0.69
17:CQ:25:GLU:HA	17:CQ:39:ARG:O	1.92	0.69
22:DA:1205:A:H5''	22:DA:1206:G:C8	2.27	0.69
22:DA:1666:G:H4'	32:DK:6:THR:HG23	1.72	0.69
22:DA:2296:U:H5	36:DO:9:ARG:NH2	1.89	0.69
22:DA:2562:U:H1'	32:DK:23:LYS:HE2	1.73	0.69
25:DD:106:LYS:CB	25:DD:206:ALA:HB3	2.21	0.69
28:DG:112:VAL:HG12	28:DG:114:HIS:H	1.56	0.69
1:AA:843:U:H2'	1:AA:844:G:H5'	1.75	0.69
5:AE:136:VAL:HG22	5:AE:136:VAL:O	1.90	0.69
6:AF:91:ARG:HG3	6:AF:92:THR:H	1.57	0.69
7:AG:4:ARG:HA	7:AG:4:ARG:NE	2.08	0.69
8:AH:9:MET:CE	8:AH:32:LYS:HA	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AJ:18:ILE:CG2	10:AJ:72:ARG:HE	2.05	0.69
22:BA:192:C:OP1	62:BA:3731:HOH:O	2.08	0.69
22:BA:1819:A:OP1	24:BC:154:ALA:HA	1.93	0.69
26:BE:132:LYS:NZ	26:BE:132:LYS:HB3	2.07	0.69
49:B1:3:GLY:O	49:B1:4:ILE:HG12	1.91	0.69
53:CA:92:U:H2'	53:CA:93:U:C5	2.28	0.69
53:CA:373:A:H2'	53:CA:374:A:H8	1.58	0.69
53:CA:441:A:C2	53:CA:497:G:C6	2.80	0.69
53:CA:702:A:H5'	53:CA:703:G:C8	2.27	0.69
53:CA:1365:G:O2'	53:CA:1366:C:H6	1.74	0.69
2:CB:13:VAL:CG2	2:CB:211:LEU:HD22	2.22	0.69
22:DA:674:G:O3'	26:DE:60:TRP:CH2	2.45	0.69
22:DA:855:G:N3	44:DW:23:LYS:HE3	2.07	0.69
22:DA:1709:U:H2'	22:DA:1710:G:C8	2.27	0.69
22:DA:1816:C:H2'	24:DC:61:TYR:CE2	2.28	0.69
24:DC:181:ARG:HG3	24:DC:265:PHE:O	1.91	0.69
25:DD:184:ARG:HH22	37:DP:6:GLN:NE2	1.91	0.69
58:DF:12:VAL:HG12	58:DF:16:MET:HG3	1.73	0.69
58:DF:136:ILE:O	58:DF:137:PHE:O	2.09	0.69
42:DU:82:VAL:H	42:DU:96:LYS:HZ2	1.37	0.69
1:AA:702:A:C4	22:BA:1847:A:H2	2.09	0.69
1:AA:994:A:C5	1:AA:1216:A:H4'	2.27	0.69
1:AA:1370:G:C5'	9:AI:110:VAL:HG21	2.23	0.69
1:AA:1380:U:H5'	1:AA:1381:U:OP1	1.92	0.69
1:AA:1395:C:H6	1:AA:1395:C:C5'	1.99	0.69
11:AK:100:ASN:HB2	11:AK:106:ILE:HG22	1.74	0.69
15:AO:16:ARG:O	15:AO:17:ASP:HB3	1.92	0.69
18:AR:31:TYR:O	18:AR:39:VAL:HG23	1.92	0.69
22:BA:195:A:C5	62:BA:3750:HOH:O	2.45	0.69
22:BA:278:A:C2	22:BA:362:A:C8	2.80	0.69
22:BA:321:U:O2'	22:BA:340:A:O2'	2.10	0.69
22:BA:569:U:OP1	22:BA:945:A:H2'	1.92	0.69
22:BA:765:C:H2'	22:BA:766:U:C6	2.27	0.69
22:BA:789:A:OP1	22:BA:790:U:H5	1.74	0.69
22:BA:1161:C:H1'	39:BR:8:GLY:O	1.92	0.69
22:BA:1515:A:H2'	22:BA:1516:G:O4'	1.92	0.69
22:BA:2021:C:P	48:B0:8:THR:HG21	2.31	0.69
30:BI:98:GLY:HA3	30:BI:137:LEU:HD23	1.75	0.69
36:BO:59:ALA:CA	36:BO:62:LEU:HD12	2.13	0.69
53:CA:548:G:H2'	53:CA:549:C:C6	2.28	0.69
53:CA:1458:G:H4'	20:CT:22:SER:HB2	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:149:LYS:HG3	3:CC:168:ARG:HB2	1.74	0.69
15:CO:79:GLN:HE21	15:CO:83:ARG:NH2	1.91	0.69
17:CQ:37:ILE:HD11	17:CQ:39:ARG:NH1	2.08	0.69
22:DA:104:A:H2'	22:DA:105:C:C6	2.28	0.69
22:DA:674:G:H2'	22:DA:804:A:H61	1.56	0.69
22:DA:1535:A:H2'	22:DA:1535:A:N3	2.07	0.69
22:DA:1568:G:H21	24:DC:57:HIS:CE1	2.11	0.69
22:DA:1700:A:C2'	22:DA:1701:A:H5'	2.23	0.69
22:DA:2014:A:H5'	40:DS:94:ASP:OD2	1.93	0.69
22:DA:2091:C:C4	22:DA:2092:U:C4	2.80	0.69
25:DD:119:ALA:HB2	25:DD:163:GLY:C	2.18	0.69
30:DI:50:LYS:HA	30:DI:50:LYS:HE2	1.73	0.69
35:DN:56:LYS:HA	35:DN:84:GLY:HA2	1.74	0.69
37:DP:28:LYS:HB3	37:DP:39:LEU:HD23	1.74	0.69
42:DU:40:LEU:HA	42:DU:61:GLU:HA	1.75	0.69
1:AA:464:U:N3	1:AA:466:A:H5'	2.06	0.69
1:AA:508:U:H4'	1:AA:509:A:OP1	1.93	0.69
1:AA:1038:C:H2'	1:AA:1039:G:C8	2.27	0.69
1:AA:1160:G:O6	1:AA:1181:G:C6	2.46	0.69
2:AB:71:THR:HG22	2:AB:72:LYS:N	2.07	0.69
5:AE:120:HIS:C	5:AE:121:ASN:HD22	2.01	0.69
16:AP:28:ARG:HG2	16:AP:29:ASN:ND2	2.07	0.69
22:BA:957:C:H4'	22:BA:958:U:OP1	1.91	0.69
22:BA:1152:C:O2'	22:BA:1153:C:H5'	1.92	0.69
22:BA:1493:C:H5''	22:BA:1494:A:OP2	1.92	0.69
25:BD:91:THR:C	25:BD:93:GLY:H	2.00	0.69
25:BD:114:LYS:HE3	25:BD:114:LYS:O	1.93	0.69
27:BF:133:GLU:H	27:BF:150:GLY:HA2	1.58	0.69
28:BG:86:LEU:HD13	28:BG:130:ILE:HB	1.73	0.69
29:BH:78:VAL:HG11	29:BH:145:ASN:HB3	1.74	0.69
35:BN:38:LEU:HD12	35:BN:38:LEU:C	2.18	0.69
39:BR:15:SER:O	39:BR:18:GLN:HB3	1.93	0.69
42:BU:100:GLU:O	42:BU:101:THR:HB	1.93	0.69
53:CA:95:C:O2'	53:CA:96:U:H5'	1.91	0.69
53:CA:251:G:H4'	53:CA:252:U:H5'	1.74	0.69
53:CA:345:C:H4'	53:CA:346:G:C5'	2.22	0.69
53:CA:996:A:O2'	53:CA:997:U:C6	2.44	0.69
53:CA:1380:U:O4	54:CG:2:ARG:HB2	1.93	0.69
53:CA:1530:G:O2'	53:CA:1531:A:C8	2.45	0.69
9:CI:23:GLY:H	9:CI:60:LEU:HA	1.57	0.69
10:CJ:37:ARG:HB3	10:CJ:74:VAL:O	1.93	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:60:PHE:O	11:CK:64:VAL:HG13	1.93	0.69
19:CS:62:THR:HG22	19:CS:63:ASP:H	1.57	0.69
22:DA:1237:A:N3	22:DA:1238:G:H1'	2.07	0.69
22:DA:1341:G:H3'	22:DA:1397:U:O2	1.91	0.69
22:DA:1388:G:H2'	22:DA:1389:G:H8	1.58	0.69
22:DA:2408:U:C2'	22:DA:2409:G:H8	2.06	0.69
22:DA:2514:U:H2'	22:DA:2515:C:C6	2.25	0.69
26:DE:147:LEU:O	26:DE:148:ILE:HB	1.92	0.69
28:DG:34:ARG:O	28:DG:35:THR:HG23	1.92	0.69
29:DH:5:LEU:C	29:DH:6:LEU:HD12	2.18	0.69
29:DH:84:ALA:HB3	29:DH:148:ALA:HA	1.73	0.69
33:DL:100:ILE:O	33:DL:101:ILE:HB	1.93	0.69
41:DT:4:GLU:HG3	41:DT:6:ARG:NH2	2.08	0.69
46:DY:28:LEU:HD23	46:DY:42:LEU:HD13	1.74	0.69
1:AA:1442:G:H2'	1:AA:1443:C:C6	2.28	0.69
5:AE:155:LYS:HA	5:AE:158:LYS:HZ2	1.56	0.69
6:AF:90:MET:HE1	18:AR:22:TYR:CE2	2.27	0.69
8:AH:104:SER:O	8:AH:122:GLY:HA3	1.92	0.69
21:AU:4:LYS:O	21:AU:4:LYS:HD2	1.92	0.69
21:AU:33:ARG:HE	21:AU:34:ARG:CG	2.06	0.69
22:BA:62:U:H4'	22:BA:63:A:OP1	1.93	0.69
22:BA:271:G:HO2'	22:BA:272:A:C5'	2.05	0.69
22:BA:475:C:H6	22:BA:475:C:C5'	2.05	0.69
22:BA:575:A:O2'	22:BA:576:U:H5'	1.92	0.69
22:BA:1062:G:O2'	22:BA:1063:G:C8	2.46	0.69
22:BA:1076:C:H2'	22:BA:1077:A:C8	2.26	0.69
22:BA:1078:U:H4'	22:BA:1079:C:H6	1.57	0.69
22:BA:1475:G:O2'	22:BA:1476:U:P	2.51	0.69
22:BA:1713:A:H4'	22:BA:1714:U:OP1	1.92	0.69
22:BA:1967:C:H2'	22:BA:1968:G:C8	2.28	0.69
22:BA:2505:G:H1'	60:BA:3135:CLY:CL1	2.30	0.69
35:BN:33:ILE:HG12	35:BN:118:ARG:CZ	2.22	0.69
36:BO:88:LYS:O	36:BO:89:ASP:HB2	1.92	0.69
42:BU:91:LYS:O	42:BU:92:VAL:HB	1.93	0.69
53:CA:14:U:O2	53:CA:16:A:C8	2.46	0.69
53:CA:338:A:H61	53:CA:351:G:H1	1.40	0.69
53:CA:986:U:H2'	53:CA:987:G:H5'	1.73	0.69
53:CA:992:U:H1'	53:CA:993:G:N2	2.06	0.69
53:CA:1151:A:H2'	53:CA:1152:A:H8	1.57	0.69
53:CA:1240:U:O2'	54:CG:37:THR:HB	1.92	0.69
53:CA:1366:C:O2'	53:CA:1367:C:C6	2.44	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:29:ILE:CG2	5:CE:30:PHE:H	1.95	0.69
6:CF:11:HIS:CD2	6:CF:54:LEU:CD2	2.73	0.69
9:CI:53:LEU:O	9:CI:54:VAL:HG13	1.93	0.69
11:CK:74:LYS:CA	11:CK:78:ILE:HD11	2.22	0.69
22:DA:228:C:C5'	22:DA:229:C:C5	2.75	0.69
22:DA:818:G:C2'	22:DA:819:A:H5''	2.22	0.69
22:DA:1013:C:O2'	22:DA:1014:A:H5'	1.92	0.69
22:DA:1126:A:H4'	22:DA:1127:A:C5'	2.22	0.69
22:DA:2284:A:OP1	49:D1:5:ARG:HG3	1.92	0.69
26:DE:28:VAL:O	26:DE:32:VAL:HG13	1.92	0.69
58:DF:30:VAL:HG12	58:DF:157:THR:HG21	1.74	0.69
30:DI:57:VAL:HG12	30:DI:58:ILE:N	2.07	0.69
32:DK:76:VAL:HB	37:DP:72:VAL:HG22	1.74	0.69
32:DK:103:VAL:HG23	32:DK:122:VAL:O	1.93	0.69
33:DL:103:ILE:H	33:DL:103:ILE:HD12	1.58	0.69
1:AA:92:U:O2'	1:AA:93:U:C6	2.45	0.69
1:AA:181:A:H5''	1:AA:182:A:OP1	1.93	0.69
1:AA:486:U:O2'	1:AA:487:A:H5'	1.93	0.69
1:AA:923:A:O4'	1:AA:1398:A:C2	2.45	0.69
1:AA:1064:G:N2	1:AA:1190:G:O2'	2.25	0.69
2:AB:67:LEU:HB3	2:AB:160:LEU:CD1	2.22	0.69
5:AE:14:LEU:CB	5:AE:36:THR:HG22	2.20	0.69
6:AF:3:HIS:CA	6:AF:92:THR:HG23	2.22	0.69
14:AN:2:LYS:HD3	14:AN:5:MET:HG2	1.75	0.69
14:AN:82:LYS:HE2	14:AN:85:GLU:HG3	1.74	0.69
16:AP:2:VAL:HG23	16:AP:65:ALA:CB	2.22	0.69
17:AQ:60:ILE:HG22	17:AQ:72:TRP:HE3	1.58	0.69
22:BA:277:G:H4'	22:BA:278:A:N7	2.07	0.69
22:BA:558:U:OP1	31:BJ:113:PRO:HB2	1.93	0.69
22:BA:811:U:O2'	22:BA:1250:G:H2'	1.93	0.69
22:BA:1510:G:O2'	22:BA:1511:G:C5'	2.40	0.69
22:BA:1563:U:H2'	22:BA:1564:C:C6	2.28	0.69
22:BA:1683:U:H2'	22:BA:1684:G:C8	2.28	0.69
22:BA:1799:G:H22	22:BA:1818:U:HO2'	1.41	0.69
22:BA:2214:C:H6	22:BA:2214:C:H5'	1.58	0.69
22:BA:2425:A:H4'	22:BA:2426:A:O5'	1.92	0.69
22:BA:2722:G:H4'	35:BN:4:ARG:HB2	1.73	0.69
24:BC:182:LYS:O	24:BC:183:VAL:HG23	1.93	0.69
25:BD:182:ALA:O	25:BD:184:ARG:N	2.25	0.69
31:BJ:26:GLY:HA2	31:BJ:29:ALA:CB	2.23	0.69
31:BJ:65:THR:HG23	31:BJ:66:GLY:N	2.07	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:82:LEU:C	33:BL:82:LEU:HD23	2.17	0.69
34:BM:1:MET:O	34:BM:2:LEU:HB2	1.92	0.69
34:BM:64:TRP:CZ3	34:BM:106:ASP:HB2	2.28	0.69
37:BP:33:GLU:HG2	37:BP:36:LYS:HD3	1.75	0.69
39:BR:62:GLU:O	39:BR:64:VAL:HG23	1.92	0.69
44:BW:8:SER:O	44:BW:9:THR:CB	2.40	0.69
53:CA:500:G:O2'	53:CA:501:C:H5'	1.91	0.69
53:CA:569:C:H5''	53:CA:570:G:OP1	1.93	0.69
53:CA:738:C:H2'	53:CA:739:C:H6	1.57	0.69
53:CA:1050:G:O2'	53:CA:1051:C:H6	1.74	0.69
53:CA:1200:C:O2'	53:CA:1201:A:OP2	2.11	0.69
53:CA:1332:A:H2'	53:CA:1333:A:H5'	1.75	0.69
53:CA:1478:U:H2'	53:CA:1479:C:H6	1.56	0.69
54:CG:148:LYS:HD3	54:CG:148:LYS:O	1.92	0.69
8:CH:54:THR:HG23	8:CH:55:LYS:H	1.58	0.69
12:CL:41:PRO:HD2	12:CL:47:ALA:O	1.92	0.69
14:CN:20:PHE:HE1	14:CN:54:SER:HB2	1.58	0.69
21:CU:53:LYS:HZ3	21:CU:53:LYS:HB2	1.58	0.69
22:DA:140:C:H5'	22:DA:141:G:H21	1.56	0.69
22:DA:216:A:O2'	22:DA:217:A:C8	2.43	0.69
22:DA:538:A:O2'	31:DJ:8:PRO:HG3	1.93	0.69
22:DA:747:U:H2'	22:DA:2613:U:O4	1.92	0.69
22:DA:765:C:H2'	22:DA:766:U:H6	1.55	0.69
22:DA:1545:A:H2'	22:DA:1546:G:O4'	1.92	0.69
22:DA:1613:G:C6	22:DA:1619:G:O6	2.45	0.69
22:DA:2324:U:H5'	22:DA:2325:G:C5'	2.23	0.69
22:DA:2515:C:OP1	31:DJ:81:ILE:HG22	1.92	0.69
57:DB:42:C:C5	58:DF:65:LEU:HD13	2.28	0.69
24:DC:71:ASP:HA	24:DC:117:SER:O	1.92	0.69
24:DC:106:PRO:HB3	24:DC:141:HIS:CE1	2.28	0.69
26:DE:5:LEU:HA	26:DE:120:VAL:HG13	1.74	0.69
29:DH:132:PHE:HZ	29:DH:134:VAL:HB	1.52	0.69
34:DM:40:ARG:HB2	34:DM:93:VAL:CG2	2.23	0.69
35:DN:52:ILE:HG21	35:DN:94:TYR:CD2	2.28	0.69
41:DT:67:VAL:HG23	41:DT:75:GLY:O	1.93	0.69
44:DW:20:LEU:HD12	44:DW:20:LEU:N	2.08	0.69
46:DY:60:LYS:HG2	46:DY:60:LYS:O	1.93	0.69
1:AA:70:U:O2'	1:AA:71:A:C8	2.44	0.69
2:AB:63:LYS:HD3	2:AB:63:LYS:C	2.17	0.69
2:AB:185:ILE:HA	2:AB:199:ILE:HB	1.75	0.69
4:AD:170:LEU:HD12	4:AD:170:LEU:N	2.08	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:86:ARG:NH1	18:AR:63:TYR:HB3	2.08	0.69
22:BA:119:A:H4'	22:BA:120:U:O5'	1.91	0.69
22:BA:789:A:OP1	22:BA:790:U:C5	2.46	0.69
22:BA:1249:U:H2'	33:BL:18:ARG:NH2	2.08	0.69
22:BA:1848:A:H2'	22:BA:1849:G:C8	2.27	0.69
22:BA:2025:C:H2'	22:BA:2026:U:C6	2.28	0.69
22:BA:2615:U:C2	48:B0:3:GLN:HA	2.28	0.69
27:BF:106:ALA:C	27:BF:108:PRO:HD2	2.18	0.69
35:BN:32:GLU:C	35:BN:33:ILE:HD12	2.16	0.69
53:CA:213:G:H2'	53:CA:214:C:H6	1.56	0.69
4:CD:66:VAL:HG22	4:CD:96:ARG:HH11	1.56	0.69
9:CI:49:GLN:N	9:CI:50:PRO:HD2	2.08	0.69
22:DA:511:U:C5'	22:DA:1235:G:H4'	2.23	0.69
22:DA:799:G:P	22:DA:800:A:H3'	2.33	0.69
22:DA:851:C:H4'	47:DZ:46:MET:HG2	1.75	0.69
22:DA:1635:A:H5'	22:DA:1635:A:H8	1.57	0.69
22:DA:1709:U:H2'	22:DA:1710:G:H8	1.57	0.69
22:DA:1906:G:H8	22:DA:1929:G:H2'	1.57	0.69
25:DD:110:THR:OG1	25:DD:171:THR:HG22	1.93	0.69
29:DH:125:THR:HG22	29:DH:146:VAL:HG11	1.75	0.69
31:DJ:5:THR:HA	31:DJ:44:TYR:CE2	2.28	0.69
38:DQ:61:ILE:CD1	38:DQ:92:LYS:HD3	2.17	0.69
1:AA:184:G:H2'	1:AA:185:U:C5	2.28	0.69
1:AA:373:A:O2'	1:AA:374:A:H5'	1.93	0.69
1:AA:1006:G:H2'	1:AA:1007:U:C6	2.28	0.69
1:AA:1468:A:H2'	1:AA:1469:C:C5'	2.22	0.69
4:AD:172:VAL:HG22	4:AD:173:ASP:N	2.06	0.69
13:AM:113:LYS:H	13:AM:114:PRO:HD2	1.57	0.69
22:BA:1249:U:H2'	33:BL:18:ARG:HH22	1.57	0.69
22:BA:1799:G:N2	22:BA:1818:U:O2'	2.25	0.69
25:BD:13:ARG:NH1	37:BP:74:GLN:HE21	1.91	0.69
25:BD:136:ASN:ND2	25:BD:139:SER:O	2.27	0.69
25:BD:182:ALA:C	25:BD:184:ARG:N	2.50	0.69
26:BE:47:LYS:HB3	26:BE:51:GLU:HG3	1.74	0.69
27:BF:104:THR:HG22	27:BF:105:ILE:CG2	2.21	0.69
40:BS:73:LYS:HB3	40:BS:106:VAL:HB	1.73	0.69
41:BT:30:ILE:CG2	41:BT:85:VAL:HB	2.20	0.69
53:CA:205:A:C6	53:CA:206:C:N4	2.61	0.69
53:CA:1348:U:O2'	53:CA:1349:A:H8	1.75	0.69
2:CB:169:HIS:HD2	2:CB:173:LYS:NZ	1.91	0.69
9:CI:118:ARG:NH2	9:CI:122:ARG:HE	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:29:LYS:HB2	17:CQ:36:PHE:CE1	2.28	0.69
22:DA:82:U:H2'	22:DA:83:A:C5'	2.22	0.69
22:DA:228:C:H5''	22:DA:229:C:C5	2.28	0.69
22:DA:674:G:H5''	26:DE:71:GLY:H	1.58	0.69
22:DA:1062:G:O4'	22:DA:1088:A:N7	2.25	0.69
22:DA:1346:G:O2'	22:DA:1347:A:C8	2.31	0.69
22:DA:1989:G:C2'	22:DA:1990:C:H5'	2.22	0.69
22:DA:2282:G:H1'	22:DA:2390:U:C5	2.28	0.69
22:DA:2458:G:H2'	22:DA:2490:G:H1	1.57	0.69
22:DA:2657:A:H2'	22:DA:2658:C:C6	2.28	0.69
35:DN:8:ARG:HG2	35:DN:10:LEU:HD22	1.73	0.69
1:AA:1409:C:H2'	1:AA:1410:A:H8	1.57	0.68
2:AB:46:VAL:CB	2:AB:47:PRO:HD3	2.22	0.68
6:AF:9:MET:CE	6:AF:59:TYR:CE2	2.77	0.68
6:AF:29:ILE:HG12	6:AF:64:VAL:HG11	1.75	0.68
12:AL:43:LYS:HB2	12:AL:44:PRO:HD2	1.75	0.68
12:AL:85:ARG:NH2	12:AL:87:LYS:HD2	2.08	0.68
22:BA:662:G:C2'	22:BA:663:G:H5'	2.22	0.68
22:BA:958:U:H5'	22:BA:958:U:C6	2.15	0.68
22:BA:1386:C:H2'	22:BA:1387:A:H8	1.57	0.68
22:BA:2233:U:H2'	22:BA:2234:G:C8	2.28	0.68
24:BC:131:MET:CA	24:BC:134:ILE:HD12	2.16	0.68
30:BI:20:SER:HB3	30:BI:21:PRO:HD3	1.75	0.68
31:BJ:30:THR:HG22	31:BJ:31:GLU:N	2.08	0.68
32:BK:1:MET:HG3	32:BK:67:LYS:HG3	1.75	0.68
32:BK:95:ILE:HD12	32:BK:95:ILE:O	1.92	0.68
36:BO:111:ARG:O	36:BO:113:ALA:N	2.27	0.68
53:CA:82:G:C2'	53:CA:83:C:H4'	2.22	0.68
53:CA:198:G:O6	53:CA:220:G:C4	2.46	0.68
53:CA:596:A:N6	53:CA:645:G:N1	2.41	0.68
53:CA:1129:C:H1'	53:CA:1146:A:H61	1.58	0.68
6:CF:9:MET:HE1	18:CR:64:LEU:CA	2.23	0.68
6:CF:42:TRP:HB2	6:CF:59:TYR:HB2	1.74	0.68
22:DA:232:G:O2'	22:DA:233:A:H5''	1.92	0.68
22:DA:748:G:O5'	40:DS:89:ALA:HB2	1.93	0.68
22:DA:1090:A:C3'	22:DA:1091:G:H5''	2.23	0.68
22:DA:2250:G:OP1	22:DA:2275:C:H2'	1.93	0.68
22:DA:2581:G:H2'	22:DA:2610:C:N4	2.07	0.68
26:DE:79:ARG:HG2	26:DE:80:SER:H	1.58	0.68
28:DG:152:ARG:HD2	28:DG:153:PRO:CD	2.23	0.68
30:DI:57:VAL:O	30:DI:58:ILE:HG13	1.92	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:30:THR:HG23	31:DJ:31:GLU:N	2.08	0.68
38:DQ:57:ARG:HH12	38:DQ:92:LYS:HE2	1.57	0.68
1:AA:76:G:H2'	1:AA:76:G:N3	2.08	0.68
1:AA:89:U:O2'	1:AA:90:C:C5'	2.40	0.68
1:AA:299:G:H2'	1:AA:300:A:C8	2.27	0.68
3:AC:148:ILE:HG12	3:AC:149:LYS:N	2.07	0.68
7:AG:53:SER:C	7:AG:55:LYS:H	2.00	0.68
14:AN:56:PRO:HA	14:AN:59:GLN:NE2	2.08	0.68
17:AQ:31:PRO:HB2	17:AQ:32:ILE:CD1	2.21	0.68
22:BA:187:G:C2	22:BA:210:C:O2	2.46	0.68
22:BA:1414:C:C5	22:BA:1415:U:H5	2.12	0.68
22:BA:1734:G:N3	22:BA:1735:A:C8	2.62	0.68
24:BC:104:LEU:O	24:BC:105:ALA:CB	2.41	0.68
28:BG:83:THR:C	28:BG:84:LYS:HE2	2.17	0.68
38:BQ:43:GLN:NE2	39:BR:77:PHE:HB3	2.07	0.68
41:BT:43:ILE:O	41:BT:47:VAL:HG23	1.92	0.68
53:CA:256:U:H2'	53:CA:257:G:O4'	1.94	0.68
53:CA:962:C:N4	53:CA:974:A:H61	1.90	0.68
53:CA:1052:U:H3'	53:CA:1053:G:H5''	1.74	0.68
53:CA:1316:G:H22	53:CA:1318:A:H3'	1.59	0.68
2:CB:147:LEU:HD12	2:CB:147:LEU:N	2.07	0.68
5:CE:135:VAL:O	5:CE:138:ALA:HB3	1.93	0.68
18:CR:71:ASP:OD1	21:CU:3:ILE:HD11	1.93	0.68
22:DA:729:G:O2'	22:DA:1775:U:H1'	1.92	0.68
22:DA:822:G:O6	22:DA:943:A:C2	2.42	0.68
22:DA:860:U:O2'	22:DA:861:A:H5'	1.92	0.68
22:DA:1290:C:HO2'	22:DA:1291:C:H6	1.36	0.68
22:DA:2056:G:H21	48:D0:1:ALA:N	1.91	0.68
22:DA:2674:G:H2'	22:DA:2675:A:C8	2.28	0.68
25:DD:117:GLY:HA2	25:DD:164:GLN:OE1	1.93	0.68
58:DF:39:VAL:HG22	58:DF:49:LEU:CB	2.24	0.68
28:DG:138:GLN:HG2	28:DG:138:GLN:O	1.91	0.68
29:DH:80:ILE:HB	29:DH:101:ASP:CG	2.19	0.68
34:DM:26:VAL:HG21	34:DM:132:THR:O	1.93	0.68
34:DM:73:ILE:HG21	34:DM:91:TYR:CE1	2.28	0.68
35:DN:56:LYS:HD3	35:DN:88:ALA:HA	1.74	0.68
1:AA:596:A:N6	1:AA:645:G:C6	2.61	0.68
1:AA:642:A:H2'	1:AA:643:C:H6	1.59	0.68
1:AA:1050:G:O2'	1:AA:1051:C:C5'	2.40	0.68
2:AB:222:GLU:OE1	2:AB:225:SER:HA	1.94	0.68
7:AG:68:VAL:HG21	7:AG:103:ILE:HD11	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:12:VAL:HG11	17:AQ:21:VAL:HG22	1.74	0.68
20:AT:67:HIS:HB3	20:AT:68:LYS:HZ2	1.58	0.68
22:BA:31:C:H4'	22:BA:1238:G:H4'	1.75	0.68
22:BA:672:C:C2	22:BA:809:G:N2	2.62	0.68
22:BA:1499:C:O2'	22:BA:1500:G:C5'	2.41	0.68
29:BH:90:LEU:CB	29:BH:123:ARG:HB3	2.22	0.68
44:BW:41:GLY:C	44:BW:43:LYS:N	2.46	0.68
45:BX:70:LEU:HB3	45:BX:75:GLU:HB2	1.75	0.68
53:CA:878:A:OP1	8:CH:79:ARG:HB2	1.92	0.68
2:CB:125:PHE:CD1	2:CB:137:THR:HG22	2.29	0.68
55:CM:18:LEU:H	55:CM:18:LEU:HD12	1.56	0.68
55:CM:68:LEU:HD22	55:CM:69:ARG:NH1	2.08	0.68
22:DA:492:A:N1	40:DS:49:LYS:HE2	2.09	0.68
22:DA:704:G:H1'	22:DA:727:A:N6	2.08	0.68
22:DA:1142:A:C8	22:DA:1144:A:N7	2.60	0.68
24:DC:120:ASP:CG	24:DC:121:ALA:H	2.00	0.68
32:DK:21:CYS:HA	32:DK:41:ILE:CD1	2.22	0.68
40:DS:24:ILE:HG21	40:DS:36:LEU:HD21	1.74	0.68
1:AA:475:C:H2'	1:AA:476:U:C6	2.29	0.68
1:AA:575:G:C6	1:AA:821:G:N7	2.61	0.68
14:AN:40:ARG:HH22	14:AN:44:VAL:HG21	1.58	0.68
17:AQ:20:ILE:HB	17:AQ:47:ASP:OD1	1.93	0.68
22:BA:85:G:OP1	42:BU:27:VAL:HG11	1.93	0.68
22:BA:386:G:H4'	22:BA:387:U:OP2	1.92	0.68
22:BA:2804:U:H2'	22:BA:2805:C:C6	2.28	0.68
28:BG:82:PHE:HB2	28:BG:134:GLY:O	1.93	0.68
37:BP:50:ARG:HG2	37:BP:57:ALA:CA	2.23	0.68
38:BQ:63:ARG:HH12	38:BQ:96:ASP:HB2	1.58	0.68
40:BS:63:GLY:O	40:BS:64:ALA:HB3	1.92	0.68
53:CA:346:G:H2'	53:CA:346:G:N3	2.08	0.68
53:CA:701:U:H4'	53:CA:702:A:C5'	2.23	0.68
53:CA:936:C:O2'	53:CA:937:A:C8	2.35	0.68
53:CA:951:G:H2'	53:CA:952:U:C6	2.28	0.68
3:CC:76:ILE:HG12	3:CC:83:VAL:HG11	1.76	0.68
5:CE:13:LYS:HE2	5:CE:13:LYS:CA	2.17	0.68
6:CF:11:HIS:HD2	6:CF:12:PRO:HD2	1.57	0.68
11:CK:78:ILE:HD13	11:CK:78:ILE:N	2.05	0.68
15:CO:23:SER:HB3	15:CO:26:VAL:CG2	2.23	0.68
21:CU:35:GLU:CG	21:CU:36:PHE:H	1.99	0.68
22:DA:303:G:O2'	22:DA:304:U:C6	2.44	0.68
22:DA:624:C:O2'	22:DA:657:U:H5''	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1087:G:C5	22:DA:1089:A:C2	2.81	0.68
22:DA:1490:A:C8	24:DC:73:ILE:HD12	2.27	0.68
22:DA:2421:G:N7	51:D3:30:HIS:HD2	1.91	0.68
24:DC:1:ALA:O	24:DC:18:VAL:HG23	1.94	0.68
24:DC:128:THR:HG23	24:DC:188:ARG:HB3	1.76	0.68
26:DE:126:VAL:HG21	26:DE:134:LEU:HD13	1.75	0.68
36:DO:26:LEU:HD23	36:DO:92:PHE:HE1	1.58	0.68
38:DQ:59:LEU:O	38:DQ:63:ARG:HD3	1.93	0.68
48:D0:32:THR:HG21	48:D0:47:TYR:CE2	2.28	0.68
51:D3:23:HIS:O	51:D3:46:LYS:HB2	1.93	0.68
1:AA:1324:A:O2'	1:AA:1325:C:C6	2.45	0.68
5:AE:148:SER:HB2	5:AE:151:MET:HB2	1.74	0.68
7:AG:23:ALA:O	7:AG:26:VAL:HG22	1.94	0.68
22:BA:545:U:H2'	22:BA:546:U:C4'	2.24	0.68
22:BA:1313:U:H2'	22:BA:1313:U:O2	1.93	0.68
22:BA:2319:G:O2'	22:BA:2320:U:H5	1.76	0.68
29:BH:75:LEU:HD22	29:BH:143:ILE:HG12	1.75	0.68
39:BR:3:ALA:HB3	39:BR:59:ILE:HD11	1.74	0.68
53:CA:238:A:C3'	53:CA:239:U:H5''	2.23	0.68
53:CA:321:A:H1'	53:CA:1435:G:O2'	1.93	0.68
53:CA:451:A:H1'	53:CA:452:A:N7	2.08	0.68
53:CA:518:C:H2'	53:CA:530:G:N7	2.08	0.68
53:CA:536:C:H2'	53:CA:537:G:C8	2.28	0.68
9:CI:35:GLU:HA	9:CI:39:GLY:CA	2.23	0.68
22:DA:167:A:H2'	22:DA:168:G:O4'	1.93	0.68
22:DA:575:A:C2	22:DA:576:U:C5	2.82	0.68
22:DA:1022:G:N2	22:DA:1142:A:C2	2.55	0.68
22:DA:1669:A:N3	22:DA:1669:A:C2'	2.52	0.68
24:DC:119:VAL:HG13	24:DC:133:ASN:HD21	1.58	0.68
30:DI:76:ALA:O	30:DI:135:MET:HE1	1.94	0.68
35:DN:22:ARG:HG2	35:DN:22:ARG:O	1.94	0.68
35:DN:28:LEU:HD23	35:DN:28:LEU:C	2.19	0.68
35:DN:62:ASN:O	35:DN:63:ARG:CB	2.42	0.68
43:DV:56:PHE:CE1	43:DV:61:LEU:HD13	2.29	0.68
48:D0:39:ARG:O	48:D0:40:HIS:HB2	1.93	0.68
48:D0:42:ILE:HD13	48:D0:48:TYR:CD2	2.28	0.68
1:AA:206:C:H2'	1:AA:207:C:C4'	2.23	0.68
1:AA:641:U:H4'	8:AH:106:SER:O	1.93	0.68
2:AB:141:GLU:HA	2:AB:144:GLU:HB2	1.75	0.68
22:BA:536:G:H2'	22:BA:537:G:C5'	2.24	0.68
22:BA:923:G:H5'	44:BW:25:PHE:CZ	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1392:A:H61	41:BT:18:GLU:CD	2.02	0.68
22:BA:1576:U:O2'	22:BA:1577:C:H5'	1.93	0.68
22:DA:297:G:H5''	42:DU:84:PHE:CB	2.20	0.68
22:DA:919:U:H2'	22:DA:920:A:C8	2.29	0.68
22:DA:1033:U:H4'	22:DA:1034:G:OP1	1.93	0.68
22:DA:2848:G:O2'	22:DA:2849:U:C6	2.44	0.68
24:DC:128:THR:HG22	24:DC:188:ARG:HB3	1.76	0.68
25:DD:38:LYS:HB3	25:DD:38:LYS:HZ3	1.58	0.68
31:DJ:73:VAL:HB	31:DJ:75:TYR:CE2	2.29	0.68
38:DQ:4:LYS:CE	38:DQ:7:VAL:HG22	2.24	0.68
38:DQ:42:GLY:HA3	39:DR:75:VAL:HG21	1.75	0.68
4:AD:196:GLU:HA	4:AD:199:ILE:HG22	1.75	0.68
6:AF:40:GLU:HB2	6:AF:42:TRP:NE1	2.06	0.68
14:AN:45:LEU:O	14:AN:45:LEU:HG	1.94	0.68
22:BA:186:G:O2'	22:BA:187:G:H5'	1.94	0.68
22:BA:780:G:H21	22:BA:783:A:H62	1.40	0.68
22:BA:1695:G:H8	24:BC:7:PRO:HG2	1.59	0.68
30:BI:7:TYR:HA	30:BI:58:ILE:HB	1.75	0.68
35:BN:108:ALA:O	35:BN:110:MET:HG2	1.94	0.68
44:BW:28:GLU:HG3	44:BW:29:SER:N	2.08	0.68
53:CA:178:C:O2'	53:CA:179:A:H5'	1.93	0.68
53:CA:279:A:C5'	53:CA:280:C:H3'	2.23	0.68
53:CA:432:A:C2'	53:CA:433:G:H5'	2.23	0.68
2:CB:185:ILE:HG22	2:CB:199:ILE:HG13	1.75	0.68
54:CG:124:SER:O	54:CG:128:GLU:HG2	1.94	0.68
10:CJ:52:LEU:HD21	10:CJ:59:LYS:HA	1.76	0.68
17:CQ:59:GLU:HB3	17:CQ:76:ARG:O	1.93	0.68
22:DA:849:A:H2'	22:DA:850:U:C6	2.29	0.68
22:DA:859:G:O2'	22:DA:860:U:OP2	2.11	0.68
22:DA:1341:G:O2'	22:DA:1398:C:H5'	1.94	0.68
22:DA:1534:U:C6	22:DA:1538:G:N1	2.62	0.68
22:DA:2324:U:C5'	22:DA:2325:G:H5''	2.24	0.68
22:DA:2720:U:H5''	37:DP:52:ARG:NH2	2.09	0.68
22:DA:2726:A:HO2'	22:DA:2727:A:P	2.16	0.68
22:DA:2851:A:H2'	22:DA:2852:G:C8	2.28	0.68
24:DC:130:PRO:N	24:DC:188:ARG:HG3	2.09	0.68
25:DD:36:GLN:HE21	25:DD:38:LYS:NZ	1.92	0.68
26:DE:24:ASN:HB3	26:DE:27:LEU:HB3	1.76	0.68
58:DF:5:ASP:C	58:DF:7:TYR:H	2.01	0.68
28:DG:115:GLN:HG2	28:DG:116:LEU:H	1.58	0.68
33:DL:57:LEU:HA	33:DL:60:ARG:HG3	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DO:51:ALA:HB3	36:DO:78:VAL:HG22	1.75	0.68
41:DT:67:VAL:O	41:DT:68:LYS:HG3	1.94	0.68
45:DX:29:LEU:HB2	45:DX:30:PRO:CD	2.23	0.68
1:AA:594:U:H2'	1:AA:595:A:O4'	1.92	0.68
1:AA:1236:A:H4'	1:AA:1304:G:H4'	1.76	0.68
1:AA:1281:C:O2'	1:AA:1282:C:H5'	1.94	0.68
1:AA:1285:A:C5'	1:AA:1286:U:C4	2.77	0.68
4:AD:104:MET:HE2	4:AD:170:LEU:HB2	1.75	0.68
7:AG:74:VAL:HG21	7:AG:85:GLN:NE2	2.09	0.68
13:AM:10:ASP:OD1	13:AM:44:ILE:HD13	1.94	0.68
13:AM:18:LEU:O	13:AM:24:VAL:HG21	1.93	0.68
18:AR:44:THR:OG1	18:AR:46:THR:HG22	1.94	0.68
22:BA:528:A:OP2	31:BJ:116:ARG:NH2	2.27	0.68
22:BA:1872:A:H2'	22:BA:1873:G:O4'	1.93	0.68
22:BA:2310:C:H2'	27:BF:76:PHE:HE1	1.58	0.68
22:BA:2471:A:H2'	22:BA:2472:G:H5'	1.76	0.68
27:BF:120:SER:HB2	27:BF:127:TYR:CE1	2.28	0.68
37:BP:50:ARG:O	37:BP:51:ASN:HB2	1.92	0.68
49:B1:42:VAL:HG12	49:B1:44:GLN:HB2	1.76	0.68
53:CA:68:G:H5'	53:CA:171:A:H1'	1.75	0.68
53:CA:373:A:O2'	53:CA:374:A:C5'	2.37	0.68
53:CA:458:U:H2'	53:CA:459:A:C8	2.27	0.68
53:CA:1226:C:H5''	55:CM:94:LEU:HD21	1.75	0.68
2:CB:110:ILE:CD1	2:CB:151:LYS:HA	2.22	0.68
54:CG:30:MET:O	54:CG:31:VAL:HB	1.93	0.68
54:CG:59:GLU:HG3	54:CG:60:ALA:H	1.59	0.68
8:CH:57:GLU:O	8:CH:58:LEU:HB2	1.92	0.68
11:CK:64:VAL:O	11:CK:68:ARG:HB2	1.92	0.68
20:CT:30:PHE:CE2	20:CT:52:GLU:HG2	2.29	0.68
22:DA:1312:U:H4'	22:DA:1313:U:O5'	1.93	0.68
22:DA:1327:A:O2'	22:DA:1328:A:O4'	2.05	0.68
22:DA:1346:G:HO2'	22:DA:1347:A:H8	0.71	0.68
22:DA:2615:U:O2'	22:DA:2616:C:H5'	1.94	0.68
32:DK:88:ASN:HB2	32:DK:91:SER:HB2	1.75	0.68
38:DQ:64:ILE:HD12	38:DQ:95:ALA:CB	2.23	0.68
41:DT:28:ASN:HB2	41:DT:87:LEU:HB3	1.76	0.68
52:D4:19:ARG:HD2	52:D4:24:ARG:HD2	1.75	0.68
1:AA:683:G:N2	11:AK:39:ASN:HA	2.08	0.68
1:AA:1151:A:O2'	1:AA:1152:A:C5'	2.42	0.68
2:AB:36:LYS:HE3	2:AB:36:LYS:CA	2.23	0.68
4:AD:71:PHE:CE1	4:AD:199:ILE:HD11	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:123:MET:HE2	4:AD:126:GLY:O	1.92	0.68
5:AE:100:GLU:HB2	5:AE:103:GLY:CA	2.24	0.68
13:AM:55:LEU:O	13:AM:59:VAL:HG12	1.92	0.68
15:AO:16:ARG:HD3	15:AO:16:ARG:H	1.57	0.68
21:AU:39:LYS:N	21:AU:40:PRO:HD2	2.07	0.68
22:BA:7:G:H2'	22:BA:8:C:H6	1.59	0.68
22:BA:14:A:H3'	22:BA:15:G:H5''	1.76	0.68
22:BA:560:C:O2	38:BQ:47:ARG:NH1	2.27	0.68
22:BA:767:U:O2'	22:BA:768:G:H5'	1.94	0.68
22:BA:1019:U:C4	22:BA:1020:A:N6	2.62	0.68
27:BF:134:GLN:O	27:BF:135:ILE:HB	1.93	0.68
31:BJ:44:TYR:CD1	31:BJ:44:TYR:C	2.71	0.68
39:BR:3:ALA:HA	39:BR:40:MET:O	1.94	0.68
51:B3:31:ILE:C	51:B3:31:ILE:HD12	2.19	0.68
52:B4:25:VAL:C	52:B4:26:ILE:HD13	2.19	0.68
53:CA:119:A:H5'	53:CA:120:A:C5'	2.24	0.68
53:CA:384:G:H2'	53:CA:385:C:C6	2.29	0.68
53:CA:464:U:C4	53:CA:466:A:H4'	2.29	0.68
53:CA:1217:C:OP1	14:CN:8:ARG:HB2	1.92	0.68
53:CA:1281:C:H3'	53:CA:1282:C:H5'	1.75	0.68
10:CJ:7:ARG:NH1	10:CJ:102:LEU:HG	2.09	0.68
56:CP:54:LEU:HD23	56:CP:54:LEU:H	1.59	0.68
20:CT:81:GLN:C	20:CT:82:ILE:HG12	2.19	0.68
22:DA:1125:G:H4'	52:D4:37:GLN:NE2	2.08	0.68
22:DA:1417:C:O2'	22:DA:1418:G:C5'	2.40	0.68
22:DA:1607:C:H4'	22:DA:1608:A:H8	1.56	0.68
22:DA:1809:A:H2'	22:DA:1810:A:C8	2.29	0.68
22:DA:2607:G:H2'	22:DA:2608:G:O4'	1.92	0.68
22:DA:2656:U:HO2'	22:DA:2657:A:H8	1.40	0.68
31:DJ:56:VAL:HG21	31:DJ:124:VAL:HG23	1.74	0.68
35:DN:16:HIS:O	35:DN:20:MET:HB2	1.93	0.68
41:DT:10:VAL:HG23	41:DT:11:LEU:H	1.59	0.68
41:DT:30:ILE:O	41:DT:85:VAL:HG23	1.94	0.68
45:DX:19:HIS:C	45:DX:21:LEU:H	2.00	0.68
1:AA:1006:G:H2'	1:AA:1007:U:H6	1.58	0.68
1:AA:1123:U:H5''	1:AA:1124:G:OP2	1.94	0.68
1:AA:1157:A:H1'	1:AA:1181:G:N1	2.09	0.68
4:AD:54:LEU:C	4:AD:54:LEU:CD2	2.67	0.68
6:AF:61:LEU:HD21	18:AR:23:LYS:NZ	2.09	0.68
8:AH:48:PHE:O	8:AH:49:LYS:HB2	1.94	0.68
11:AK:15:VAL:HG13	11:AK:78:ILE:CG2	2.24	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AK:126:ARG:CB	21:AU:33:ARG:NH1	2.41	0.68
21:AU:32:ARG:HG2	21:AU:32:ARG:O	1.93	0.68
22:BA:1179:G:OP2	22:BA:1180:U:H5''	1.94	0.68
22:BA:1494:A:H2'	22:BA:1495:A:H8	1.59	0.68
22:BA:2058:A:H5''	22:BA:2059:A:OP2	1.93	0.68
22:BA:2188:U:H2'	22:BA:2189:U:H6	1.57	0.68
22:BA:2599:G:C2'	22:BA:2600:A:H5'	2.24	0.68
26:BE:137:LYS:O	26:BE:141:MET:HG3	1.93	0.68
32:BK:18:ARG:N	32:BK:45:GLU:HB2	2.06	0.68
36:BO:75:GLY:HA3	36:BO:106:LEU:HA	1.75	0.68
37:BP:25:VAL:HG11	37:BP:46:VAL:HG23	1.75	0.68
38:BQ:96:ASP:C	38:BQ:98:ALA:N	2.49	0.68
44:BW:33:GLY:O	44:BW:34:SER:HB3	1.93	0.68
53:CA:802:A:H2'	53:CA:803:G:H5'	1.76	0.68
53:CA:1102:A:H2'	53:CA:1103:C:C6	2.28	0.68
53:CA:1453:G:H2'	53:CA:1453:G:N3	2.09	0.68
5:CE:81:GLN:OE1	5:CE:149:PRO:HD3	1.94	0.68
12:CL:2:THR:HB	12:CL:5:GLN:H	1.59	0.68
17:CQ:37:ILE:HG13	17:CQ:38:LYS:O	1.93	0.68
22:DA:304:U:HO2'	22:DA:305:C:H6	1.37	0.68
22:DA:528:A:N1	22:DA:2043:C:O5'	2.27	0.68
22:DA:851:C:C4'	47:DZ:46:MET:HG2	2.23	0.68
22:DA:1343:G:H2'	22:DA:1344:U:C5	2.29	0.68
22:DA:1722:A:C6	22:DA:1739:A:C8	2.81	0.68
22:DA:2211:A:OP2	22:DA:2211:A:H4'	1.94	0.68
22:DA:2276:G:O2'	22:DA:2277:G:H5'	1.94	0.68
26:DE:109:LEU:O	26:DE:112:LEU:HB3	1.94	0.68
36:DO:70:ALA:O	36:DO:74:VAL:HG23	1.94	0.68
44:DW:37:VAL:CG2	44:DW:38:ARG:NH1	2.57	0.68
1:AA:1025:U:H5''	1:AA:1026:G:H5'	1.76	0.67
1:AA:1195:C:H2'	1:AA:1197:A:H5'	1.75	0.67
1:AA:1355:G:O2'	1:AA:1356:G:H5'	1.93	0.67
12:AL:84:GLY:O	12:AL:95:HIS:HD2	1.76	0.67
22:BA:594:U:H2'	22:BA:595:C:C6	2.27	0.67
22:BA:614:A:O2'	22:BA:615:U:OP2	2.11	0.67
22:BA:899:A:HO2'	22:BA:900:A:H8	1.42	0.67
22:BA:1644:C:O2'	22:BA:1645:G:H5'	1.94	0.67
22:BA:2150:C:H2'	22:BA:2151:U:H5	1.56	0.67
26:BE:146:VAL:HG23	26:BE:167:VAL:HG21	1.76	0.67
34:BM:114:ARG:HA	34:BM:130:PHE:CE1	2.28	0.67
53:CA:520:A:H2'	53:CA:521:G:O4'	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:643:C:O2'	53:CA:644:U:C5'	2.42	0.67
53:CA:1504:G:C4'	53:CA:1505:G:H5'	2.23	0.67
5:CE:44:ARG:NH2	5:CE:70:MET:HB2	2.09	0.67
6:CF:1:MET:HE1	6:CF:34:GLY:HA2	1.76	0.67
55:CM:91:ARG:HD3	55:CM:91:ARG:O	1.94	0.67
22:DA:12:U:O2	22:DA:12:U:H2'	1.93	0.67
22:DA:929:U:H1'	47:DZ:25:GLY:O	1.93	0.67
22:DA:1008:A:H4'	22:DA:1009:A:OP1	1.93	0.67
22:DA:1204:A:H4'	22:DA:1205:A:H5''	1.76	0.67
22:DA:1352:U:C5	22:DA:1377:G:C6	2.82	0.67
22:DA:1740:G:O2'	22:DA:1741:C:H5'	1.94	0.67
22:DA:1821:A:O2'	22:DA:1822:C:O5'	2.12	0.67
22:DA:2585:U:O2'	22:DA:2586:U:C5'	2.42	0.67
22:DA:2829:A:C2'	22:DA:2830:C:H5'	2.24	0.67
25:DD:4:LEU:HD23	25:DD:101:PHE:CE1	2.29	0.67
25:DD:78:GLY:C	25:DD:79:LEU:HD22	2.19	0.67
28:DG:175:LYS:HD3	28:DG:175:LYS:C	2.19	0.67
34:DM:34:LYS:HB2	34:DM:131:VAL:HG23	1.76	0.67
34:DM:36:VAL:HG13	43:DV:82:TYR:HD1	1.57	0.67
39:DR:39:LEU:HA	39:DR:49:ILE:CG2	2.17	0.67
41:DT:10:VAL:HG23	41:DT:11:LEU:CD1	2.23	0.67
51:D3:36:ALA:O	51:D3:40:LYS:HG3	1.93	0.67
1:AA:1201:A:H1'	1:AA:1202:U:OP2	1.94	0.67
5:AE:152:VAL:HG12	5:AE:155:LYS:HZ1	1.60	0.67
8:AH:88:LYS:HG3	8:AH:89:ASP:H	1.58	0.67
16:AP:36:VAL:O	16:AP:36:VAL:HG13	1.93	0.67
23:BB:15:A:O2'	23:BB:16:G:H5'	1.95	0.67
25:BD:46:ARG:HG3	25:BD:84:LEU:HB2	1.76	0.67
25:BD:107:VAL:H	25:BD:206:ALA:H	1.39	0.67
26:BE:46:GLN:HG3	26:BE:86:ALA:HA	1.76	0.67
26:BE:160:ALA:O	26:BE:161:ALA:HB3	1.93	0.67
41:BT:18:GLU:HA	41:BT:18:GLU:OE2	1.93	0.67
44:BW:37:VAL:CG1	44:BW:55:ASP:O	2.43	0.67
53:CA:675:A:H1'	11:CK:117:HIS:ND1	2.09	0.67
53:CA:704:A:HO2'	53:CA:705:G:H8	1.40	0.67
53:CA:960:U:O2'	53:CA:1223:C:C4'	2.42	0.67
53:CA:1072:G:H2'	53:CA:1073:U:C6	2.29	0.67
2:CB:131:LYS:O	2:CB:131:LYS:HE3	1.94	0.67
4:CD:8:LEU:CD2	4:CD:21:LYS:HD2	2.24	0.67
5:CE:68:ARG:O	5:CE:70:MET:HG2	1.94	0.67
9:CI:58:GLU:HG3	9:CI:59:LYS:H	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:102:LEU:HD13	10:CJ:102:LEU:OXT	1.95	0.67
15:CO:63:ARG:HH22	22:DA:715:A:C5'	2.06	0.67
56:CP:52:LEU:O	56:CP:53:ASP:HB2	1.93	0.67
18:CR:22:TYR:HA	18:CR:57:ALA:HB1	1.76	0.67
22:DA:1010:A:O2'	22:DA:1011:G:C5'	2.42	0.67
22:DA:1038:G:C2'	22:DA:1039:A:C5'	2.71	0.67
22:DA:1079:C:N4	22:DA:1088:A:N3	2.42	0.67
22:DA:1087:G:H1'	22:DA:1089:A:H1'	1.76	0.67
22:DA:1127:A:O2'	22:DA:1128:G:C5'	2.38	0.67
22:DA:1345:C:O2'	22:DA:1346:G:H8	1.74	0.67
24:DC:149:LYS:HE3	24:DC:152:GLN:CD	2.19	0.67
30:DI:76:ALA:HB2	30:DI:131:THR:HB	1.75	0.67
32:DK:97:THR:O	32:DK:98:ARG:HB2	1.92	0.67
33:DL:79:LEU:CA	33:DL:82:LEU:HD11	2.19	0.67
40:DS:66:ILE:HD13	40:DS:66:ILE:N	2.09	0.67
49:D1:34:GLU:HG3	49:D1:49:LYS:HB2	1.77	0.67
49:D1:47:ILE:HD12	49:D1:47:ILE:N	2.09	0.67
1:AA:345:C:C3'	37:BP:33:GLU:OE1	2.42	0.67
1:AA:701:U:O2'	1:AA:702:A:OP2	2.12	0.67
1:AA:1071:C:H2'	1:AA:1072:G:C8	2.28	0.67
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.94	0.67
1:AA:1306:A:H2'	1:AA:1307:U:H5'	1.74	0.67
5:AE:12:GLU:HB2	5:AE:38:VAL:HG12	1.76	0.67
10:AJ:49:PHE:CE1	14:AN:76:PHE:HZ	2.13	0.67
22:BA:2136:G:C2	22:BA:2137:U:C4	2.82	0.67
22:BA:2732:G:H8	22:BA:2732:G:OP2	1.77	0.67
26:BE:61:ARG:NH1	26:BE:64:GLY:HA3	2.09	0.67
35:BN:23:ASN:HD22	35:BN:23:ASN:N	1.91	0.67
37:BP:83:ILE:C	37:BP:83:ILE:CD1	2.66	0.67
40:BS:4:ILE:HG22	40:BS:106:VAL:HG13	1.76	0.67
41:BT:8:LEU:N	41:BT:8:LEU:HD23	2.08	0.67
53:CA:197:A:C6	53:CA:221:C:C4'	2.77	0.67
53:CA:954:G:H1	53:CA:1228:C:N4	1.92	0.67
53:CA:958:A:H62	19:CS:54:ARG:NH1	1.92	0.67
53:CA:960:U:O2'	53:CA:1223:C:H5''	1.94	0.67
53:CA:960:U:H4'	53:CA:961:U:O5'	1.94	0.67
53:CA:1202:U:O2'	53:CA:1203:C:H5'	1.93	0.67
2:CB:112:ARG:O	2:CB:112:ARG:HG3	1.94	0.67
5:CE:28:ARG:HG2	5:CE:29:ILE:N	2.08	0.67
5:CE:73:VAL:HG12	5:CE:74:ALA:O	1.94	0.67
6:CF:39:LEU:HD12	6:CF:40:GLU:N	2.09	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:100:MET:HE2	54:CG:100:MET:N	2.09	0.67
19:CS:28:LYS:HB3	19:CS:29:PRO:HD2	1.75	0.67
22:DA:108:G:H2'	22:DA:109:C:H6	1.60	0.67
22:DA:273:G:H2'	22:DA:274:C:C6	2.29	0.67
22:DA:2756:U:H1'	22:DA:2757:A:H5''	1.76	0.67
26:DE:150:THR:O	26:DE:192:ALA:HB2	1.95	0.67
28:DG:112:VAL:HG12	28:DG:114:HIS:HB3	1.76	0.67
31:DJ:64:VAL:HG22	31:DJ:68:LYS:HG3	1.75	0.67
39:DR:82:HIS:O	39:DR:82:HIS:CG	2.47	0.67
42:DU:6:ARG:HG2	42:DU:7:ASP:N	2.08	0.67
45:DX:30:PRO:HG2	45:DX:32:LEU:CD2	2.23	0.67
46:DY:18:LEU:O	46:DY:18:LEU:HD13	1.94	0.67
1:AA:654:G:H4'	8:AH:2:MET:HE1	1.76	0.67
12:AL:43:LYS:CB	12:AL:44:PRO:CD	2.71	0.67
13:AM:39:ALA:HB3	13:AM:42:VAL:CG1	2.24	0.67
22:BA:364:C:O2'	22:BA:365:U:H5'	1.92	0.67
22:BA:568:U:OP1	33:BL:36:LYS:HE3	1.94	0.67
22:BA:1537:G:H5''	22:BA:1537:G:N3	2.10	0.67
22:BA:2801:G:H2'	22:BA:2802:G:C8	2.30	0.67
25:BD:73:VAL:HG23	25:BD:74:GLU:H	1.60	0.67
28:BG:29:ASN:CG	28:BG:30:GLY:H	2.02	0.67
37:BP:87:ARG:NH2	37:BP:111:GLU:HG3	2.09	0.67
45:BX:30:PRO:HB2	45:BX:32:LEU:HD12	1.77	0.67
45:BX:65:THR:O	45:BX:68:ALA:HB3	1.94	0.67
53:CA:821:G:H2'	53:CA:822:U:H6	1.59	0.67
53:CA:1087:G:O2'	53:CA:1088:G:H5'	1.95	0.67
14:CN:2:LYS:HD3	14:CN:5:MET:CG	2.25	0.67
22:DA:110:G:N2	22:DA:111:A:H1'	2.10	0.67
22:DA:2336:A:N7	44:DW:40:ARG:CZ	2.58	0.67
22:DA:2344:U:H4'	22:DA:2345:G:OP1	1.94	0.67
57:DB:31:C:H5''	58:DF:29:ARG:HH12	1.59	0.67
24:DC:191:LEU:HD22	24:DC:191:LEU:N	2.10	0.67
29:DH:1:MET:CE	29:DH:23:ALA:HB2	2.24	0.67
35:DN:56:LYS:HA	35:DN:84:GLY:CA	2.23	0.67
41:DT:29:THR:N	41:DT:87:LEU:HB2	2.08	0.67
45:DX:53:LYS:HA	45:DX:56:ARG:HB2	1.77	0.67
1:AA:98:A:H2'	1:AA:99:C:H6	1.59	0.67
1:AA:206:C:C2	1:AA:207:C:H1'	2.29	0.67
1:AA:428:G:C1'	1:AA:430:A:C8	2.78	0.67
1:AA:437:U:H4'	4:AD:153:ARG:NH2	2.09	0.67
1:AA:779:C:C2'	1:AA:780:A:H5'	2.24	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1507:A:N6	1:AA:1530:G:C6	2.62	0.67
5:AE:37:VAL:HG12	5:AE:116:VAL:HG21	1.75	0.67
5:AE:67:ARG:HB2	5:AE:68:ARG:HE	1.60	0.67
5:AE:83:PRO:HB3	5:AE:96:GLN:HE21	1.58	0.67
5:AE:152:VAL:CB	5:AE:155:LYS:NZ	2.58	0.67
22:BA:6:A:O2'	22:BA:7:G:H5'	1.93	0.67
22:BA:39:G:H2'	22:BA:40:U:H6	1.59	0.67
22:BA:574:A:H4'	22:BA:575:A:H5'	1.76	0.67
22:BA:747:U:H2'	22:BA:2613:U:O4	1.94	0.67
22:BA:1188:U:H2'	22:BA:1189:A:H5'	1.74	0.67
22:BA:2207:C:H2'	22:BA:2208:C:C6	2.30	0.67
22:BA:2547:A:H2'	22:BA:2548:U:C6	2.29	0.67
24:BC:68:ARG:HD3	24:BC:103:ILE:HD11	1.76	0.67
24:BC:80:LEU:HD11	24:BC:109:LEU:HG	1.77	0.67
24:BC:85:ASN:OD1	24:BC:85:ASN:N	2.27	0.67
24:BC:140:VAL:HG11	24:BC:189:ALA:HB1	1.75	0.67
26:BE:129:PRO:HG3	26:BE:156:ASN:OD1	1.93	0.67
32:BK:63:VAL:HG21	32:BK:85:VAL:HG23	1.76	0.67
53:CA:412:A:H4'	53:CA:413:G:OP1	1.92	0.67
53:CA:696:A:H2'	53:CA:697:U:H6	1.59	0.67
53:CA:1278:G:H4'	53:CA:1279:G:H5'	1.73	0.67
3:CC:33:ASP:O	3:CC:37:LYS:HG2	1.94	0.67
4:CD:94:GLU:CD	4:CD:99:ASN:HD21	2.03	0.67
6:CF:3:HIS:HD2	6:CF:65:GLU:HG2	1.58	0.67
20:CT:3:ILE:O	20:CT:4:LYS:HG2	1.93	0.67
22:DA:946:C:O2'	22:DA:947:A:H5'	1.95	0.67
22:DA:959:A:H2'	22:DA:960:A:N7	2.10	0.67
22:DA:1326:U:O2'	22:DA:1327:A:H8	1.77	0.67
22:DA:1536:C:H5''	22:DA:1537:G:O5'	1.93	0.67
22:DA:2271:G:H2'	22:DA:2272:U:C6	2.30	0.67
22:DA:2324:U:H5'	22:DA:2325:G:H5''	1.77	0.67
22:DA:2846:G:OP1	37:DP:51:ASN:HB2	1.95	0.67
57:DB:58:A:O2'	57:DB:59:A:H8	1.78	0.67
26:DE:34:ALA:HB1	26:DE:94:GLN:HB2	1.75	0.67
26:DE:157:LEU:C	26:DE:157:LEU:HD12	2.20	0.67
32:DK:99:ILE:HG13	32:DK:118:LEU:HD12	1.77	0.67
34:DM:108:VAL:HG23	34:DM:109:PRO:HD2	1.77	0.67
39:DR:39:LEU:HB3	39:DR:49:ILE:HD13	1.77	0.67
1:AA:425:G:C2'	1:AA:426:U:H5'	2.24	0.67
1:AA:430:A:O2'	1:AA:431:A:C5'	2.40	0.67
1:AA:725:G:H2'	1:AA:726:C:H6	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1233:G:H2'	1:AA:1234:C:H6	1.59	0.67
5:AE:114:LEU:HD21	5:AE:122:VAL:CG2	2.25	0.67
5:AE:155:LYS:HD2	5:AE:155:LYS:H	1.60	0.67
10:AJ:18:ILE:HG21	10:AJ:72:ARG:HE	1.59	0.67
22:BA:1011:G:H4'	22:BA:1012:U:OP1	1.92	0.67
22:BA:1735:A:H2'	22:BA:1736:U:H6	1.60	0.67
22:BA:2543:G:H2'	22:BA:2544:G:C8	2.29	0.67
24:BC:52:HIS:NE2	24:BC:218:THR:HG23	2.09	0.67
29:BH:4:ILE:HG12	29:BH:18:GLN:NE2	2.10	0.67
44:BW:17:ALA:CA	44:BW:35:ILE:HG23	2.24	0.67
44:BW:41:GLY:O	44:BW:43:LYS:N	2.28	0.67
53:CA:160:A:H2'	53:CA:161:A:O4'	1.95	0.67
53:CA:1268:G:N2	53:CA:1327:C:H1'	2.10	0.67
12:CL:56:LEU:HB2	12:CL:58:ASN:OD1	1.94	0.67
12:CL:70:GLY:C	12:CL:98:ARG:HH22	2.02	0.67
22:DA:35:G:O2'	22:DA:36:G:O5'	2.13	0.67
22:DA:686:U:C6	22:DA:788:A:N1	2.62	0.67
22:DA:859:G:N2	22:DA:916:G:C2'	2.57	0.67
22:DA:942:G:H4'	22:DA:1190:G:H5'	1.75	0.67
22:DA:1063:G:HO2'	22:DA:1064:C:H6	1.41	0.67
22:DA:1651:G:N2	22:DA:2007:U:C2	2.63	0.67
22:DA:2136:G:O2'	22:DA:2137:U:C6	2.47	0.67
22:DA:2286:G:O6	49:D1:22:THR:HG21	1.94	0.67
22:DA:2620:C:O4'	25:DD:161:MET:HG3	1.95	0.67
25:DD:179:ARG:HD2	25:DD:188:LEU:HD12	1.75	0.67
26:DE:23:PHE:HB2	26:DE:114:ARG:HH22	1.60	0.67
26:DE:98:LYS:O	26:DE:99:LYS:HB2	1.93	0.67
58:DF:39:VAL:HG13	58:DF:49:LEU:HD23	1.76	0.67
58:DF:65:LEU:HD11	58:DF:87:LYS:HZ1	1.58	0.67
58:DF:177:ARG:HD3	58:DF:178:LYS:N	2.10	0.67
33:DL:122:VAL:O	33:DL:122:VAL:HG23	1.94	0.67
36:DO:30:ARG:HG2	36:DO:31:THR:N	2.09	0.67
37:DP:45:VAL:O	37:DP:60:VAL:HA	1.95	0.67
44:DW:49:ASN:CG	44:DW:81:ILE:HG23	2.19	0.67
1:AA:667:G:H4'	15:AO:50:HIS:ND1	2.10	0.67
4:AD:47:LEU:HD23	4:AD:47:LEU:O	1.95	0.67
5:AE:10:LEU:HD23	5:AE:10:LEU:H	1.60	0.67
5:AE:11:GLN:HA	5:AE:11:GLN:NE2	2.05	0.67
22:BA:201:C:C2'	22:BA:202:U:H5'	2.25	0.67
22:BA:264:C:C2'	22:BA:265:A:H5''	2.25	0.67
22:BA:1139:G:O2'	22:BA:1140:C:H5'	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1731:G:O2'	22:BA:1732:C:H3'	1.94	0.67
22:BA:2584:U:O4	62:BA:3698:HOH:O	2.08	0.67
27:BF:39:VAL:CG1	27:BF:49:LEU:HD13	2.25	0.67
37:BP:19:PHE:O	37:BP:20:ARG:HB3	1.93	0.67
44:BW:76:ARG:HG3	44:BW:76:ARG:NH2	2.09	0.67
53:CA:108:G:H5'	53:CA:109:A:H5''	1.77	0.67
53:CA:487:A:H2'	53:CA:488:C:O4'	1.95	0.67
53:CA:1169:A:H2'	53:CA:1170:A:C8	2.30	0.67
9:CI:75:ALA:HA	9:CI:78:ILE:HD12	1.75	0.67
12:CL:5:GLN:HG3	12:CL:9:LYS:NZ	2.10	0.67
55:CM:28:ARG:O	55:CM:28:ARG:HD2	1.93	0.67
55:CM:77:LYS:O	55:CM:77:LYS:HD3	1.94	0.67
55:CM:81:ASP:HB3	55:CM:82:LEU:HD12	1.75	0.67
21:CU:53:LYS:HB2	21:CU:53:LYS:NZ	2.10	0.67
22:DA:126:A:O5'	50:D2:19:ARG:HG3	1.94	0.67
22:DA:491:G:O2'	22:DA:492:A:H5'	1.94	0.67
22:DA:575:A:N3	22:DA:576:U:C5	2.62	0.67
22:DA:705:A:H2'	22:DA:706:A:C8	2.28	0.67
22:DA:800:A:H4'	22:DA:801:G:O5'	1.93	0.67
22:DA:1274:A:C6	22:DA:1302:A:C2	2.82	0.67
22:DA:1666:G:O3'	32:DK:6:THR:HG23	1.93	0.67
22:DA:2426:A:H3'	22:DA:2427:C:C5'	2.24	0.67
22:DA:2508:G:C2	22:DA:2582:G:C6	2.83	0.67
22:DA:2788:C:H2'	22:DA:2789:C:C6	2.29	0.67
57:DB:40:U:O2'	57:DB:45:A:N6	2.27	0.67
57:DB:81:G:H2'	57:DB:82:U:H6	1.60	0.67
24:DC:32:LEU:HB3	24:DC:63:ILE:HG12	1.77	0.67
25:DD:119:ALA:HB2	25:DD:163:GLY:O	1.94	0.67
58:DF:177:ARG:HD3	58:DF:178:LYS:H	1.60	0.67
31:DJ:86:GLN:O	31:DJ:87:ALA:HB2	1.94	0.67
32:DK:7:MET:HE1	32:DK:20:MET:HB2	1.76	0.67
35:DN:70:THR:HG22	35:DN:70:THR:O	1.95	0.67
42:DU:81:ARG:CB	42:DU:96:LYS:HD2	2.25	0.67
45:DX:63:ILE:O	45:DX:67:LEU:HD12	1.95	0.67
46:DY:37:LEU:HD13	46:DY:42:LEU:CD1	2.24	0.67
52:D4:3:VAL:O	52:D4:4:ARG:HB2	1.94	0.67
1:AA:98:A:H2'	1:AA:99:C:C6	2.30	0.67
1:AA:279:A:H5''	1:AA:281:G:O4'	1.93	0.67
1:AA:469:C:O2'	1:AA:470:C:H5'	1.95	0.67
1:AA:601:G:H2'	1:AA:602:A:C8	2.30	0.67
1:AA:1387:G:H2'	1:AA:1388:C:C6	2.30	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1398:A:H8	1:AA:1398:A:H5''	1.60	0.67
2:AB:46:VAL:HB	2:AB:47:PRO:CD	2.23	0.67
2:AB:89:PHE:CB	2:AB:149:GLY:HA2	2.08	0.67
2:AB:187:ASP:HB2	2:AB:203:ASP:HB3	1.77	0.67
5:AE:132:PRO:HA	5:AE:135:VAL:HG13	1.75	0.67
19:AS:46:LEU:H	19:AS:61:VAL:CG2	2.07	0.67
22:BA:38:A:N3	26:BE:43:THR:HB	2.09	0.67
22:BA:1882:U:O2'	22:BA:1883:U:H5'	1.95	0.67
22:BA:2134:A:HO2'	22:BA:2135:A:H8	1.42	0.67
32:BK:24:VAL:HG12	32:BK:30:ARG:HD2	1.77	0.67
32:BK:39:ILE:HG22	32:BK:60:ALA:O	1.95	0.67
36:BO:76:LYS:O	36:BO:80:GLU:HG2	1.95	0.67
53:CA:182:A:C4	53:CA:184:G:N7	2.63	0.67
53:CA:1301:U:O2'	53:CA:1302:C:C5	2.48	0.67
53:CA:1467:C:H2'	53:CA:1468:A:C8	2.30	0.67
4:CD:129:VAL:HG11	4:CD:134:TYR:CD1	2.29	0.67
56:CP:52:LEU:CD2	56:CP:75:ILE:HG12	2.25	0.67
22:DA:633:A:O5'	22:DA:633:A:H8	1.78	0.67
22:DA:784:G:O2'	22:DA:785:G:H8	1.78	0.67
22:DA:2197:U:C6	22:DA:2224:G:C6	2.82	0.67
26:DE:88:ARG:HB3	26:DE:89:PRO:HD2	1.77	0.67
26:DE:111:GLU:HB2	26:DE:114:ARG:HH21	1.57	0.67
26:DE:134:LEU:HA	26:DE:137:LYS:HB2	1.76	0.67
30:DI:21:PRO:N	30:DI:22:PRO:HD2	2.10	0.67
40:DS:1:MET:HE2	40:DS:1:MET:H2	1.58	0.67
40:DS:29:VAL:HG11	40:DS:55:ILE:CD1	2.24	0.67
45:DX:52:ALA:O	45:DX:53:LYS:HB3	1.93	0.67
1:AA:500:G:H2'	1:AA:501:C:C6	2.30	0.67
1:AA:545:C:C5'	4:AD:68:GLU:HG3	2.19	0.67
1:AA:1225:A:H2'	1:AA:1226:C:C5	2.30	0.67
3:AC:166:TRP:HE3	3:AC:166:TRP:N	1.89	0.67
5:AE:152:VAL:CA	5:AE:155:LYS:NZ	2.58	0.67
13:AM:7:ASN:HD22	13:AM:8:ILE:H	1.41	0.67
22:BA:1681:G:O2'	22:BA:1762:A:H1'	1.95	0.67
22:BA:2886:A:C5	22:BA:2887:A:C8	2.83	0.67
23:BB:53:A:O2'	23:BB:54:G:H5'	1.95	0.67
31:BJ:18:VAL:CG2	31:BJ:140:LEU:CD1	2.72	0.67
37:BP:50:ARG:HB2	37:BP:56:SER:HA	1.77	0.67
53:CA:117:G:C2'	53:CA:118:U:H5'	2.25	0.67
4:CD:3:TYR:O	4:CD:4:LEU:HB2	1.94	0.67
54:CG:68:VAL:CG2	54:CG:134:VAL:HG12	2.25	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:47:LEU:HD23	55:CM:48:SER:N	2.10	0.67
17:CQ:67:SER:OG	17:CQ:70:LYS:HB2	1.94	0.67
22:DA:286:U:H2'	22:DA:287:G:C8	2.29	0.67
22:DA:426:C:C2'	22:DA:427:U:H5'	2.25	0.67
22:DA:647:G:O2'	22:DA:648:G:H5'	1.94	0.67
22:DA:678:C:H2'	22:DA:679:C:H6	1.58	0.67
22:DA:688:U:O2'	22:DA:689:A:H5'	1.95	0.67
22:DA:1255:U:H3'	22:DA:1256:G:H5''	1.75	0.67
22:DA:1428:C:C5	22:DA:1569:A:H5'	2.29	0.67
22:DA:1827:U:O4'	22:DA:1970:A:O2'	2.12	0.67
22:DA:2271:G:H2'	22:DA:2272:U:H6	1.60	0.67
22:DA:2331:G:O2'	44:DW:40:ARG:HB3	1.94	0.67
22:DA:2384:U:H5''	22:DA:2386:A:OP1	1.95	0.67
58:DF:43:ILE:HD13	58:DF:82:TYR:CE2	2.28	0.67
31:DJ:25:LEU:HB2	31:DJ:62:VAL:HG21	1.76	0.67
40:DS:4:ILE:CG2	40:DS:106:VAL:HG22	2.24	0.67
48:D0:26:SER:O	48:D0:27:LEU:HD13	1.94	0.67
1:AA:1247:U:O2'	1:AA:1248:A:H5'	1.94	0.67
1:AA:1520:C:H2'	1:AA:1521:C:H6	1.60	0.67
5:AE:152:VAL:HB	5:AE:155:LYS:HZ2	1.60	0.67
11:AK:22:ILE:HG22	11:AK:31:VAL:HG13	1.76	0.67
20:AT:75:LYS:HB3	20:AT:75:LYS:NZ	2.10	0.67
22:BA:346:A:C2	22:BA:347:A:H1'	2.30	0.67
22:BA:503:A:H4'	22:BA:504:A:O5'	1.94	0.67
22:BA:595:C:H2'	22:BA:596:U:H6	1.60	0.67
22:BA:703:U:H2'	22:BA:704:G:H5'	1.75	0.67
22:BA:1967:C:C2'	22:BA:1968:G:H5'	2.23	0.67
22:BA:2092:U:H4'	22:BA:2093:G:O5'	1.95	0.67
22:BA:2729:G:H8	22:BA:2729:G:H5''	1.60	0.67
26:BE:187:VAL:HG12	26:BE:188:MET:N	2.08	0.67
33:BL:55:MET:CE	33:BL:55:MET:HA	2.24	0.67
53:CA:389:A:O2'	53:CA:390:U:H5'	1.94	0.67
53:CA:523:A:C2	53:CA:527:G:O6	2.48	0.67
53:CA:672:U:H2'	53:CA:673:A:C8	2.30	0.67
53:CA:718:A:C5	11:CK:117:HIS:CD2	2.83	0.67
53:CA:1171:A:O2'	53:CA:1172:C:H5'	1.93	0.67
54:CG:116:ALA:O	54:CG:120:ALA:HB3	1.94	0.67
22:DA:594:U:H2'	22:DA:595:C:C6	2.30	0.67
22:DA:851:C:H2'	22:DA:852:U:C6	2.30	0.67
22:DA:1135:C:N4	22:DA:1139:G:C6	2.63	0.67
22:DA:1252:G:H5''	62:DA:3286:HOH:O	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1429:G:O2'	22:DA:1430:G:H8	1.77	0.67
22:DA:1536:C:H4'	22:DA:1537:G:C5'	2.24	0.67
22:DA:1964:G:H4'	22:DA:1965:C:OP2	1.94	0.67
22:DA:2093:G:N7	22:DA:2225:A:C4	2.63	0.67
22:DA:2229:U:H2'	22:DA:2230:G:C8	2.30	0.67
57:DB:17:C:N4	57:DB:68:C:H42	1.93	0.67
24:DC:77:VAL:HG23	24:DC:112:GLY:H	1.60	0.67
25:DD:40:LEU:H	25:DD:40:LEU:HD12	1.59	0.67
31:DJ:57:LEU:HG	31:DJ:128:ASN:H	1.59	0.67
33:DL:117:THR:HG22	33:DL:118:THR:N	2.08	0.67
40:DS:6:LYS:HZ2	40:DS:104:THR:HG23	1.58	0.67
40:DS:39:THR:O	40:DS:40:ASN:HB3	1.94	0.67
1:AA:1112:C:N4	3:AC:177:LEU:HD22	2.10	0.66
1:AA:1533:C:H3'	1:AA:1534:A:H5''	1.77	0.66
2:AB:95:TRP:HZ2	2:AB:100:LEU:HD23	1.60	0.66
7:AG:12:LEU:HD22	7:AG:12:LEU:N	1.98	0.66
15:AO:15:GLY:C	15:AO:17:ASP:H	2.04	0.66
15:AO:73:ASP:OD2	15:AO:76:ARG:HG3	1.95	0.66
22:BA:1223:G:OP2	39:BR:68:ARG:NH1	2.27	0.66
22:BA:2615:U:O2'	22:BA:2616:C:H5'	1.94	0.66
23:BB:12:C:H4'	23:BB:13:G:OP1	1.95	0.66
28:BG:29:ASN:CG	28:BG:30:GLY:N	2.50	0.66
29:BH:75:LEU:HD23	29:BH:143:ILE:HG23	1.76	0.66
38:BQ:82:LEU:CD2	38:BQ:112:ALA:HB2	2.25	0.66
53:CA:269:C:H2'	53:CA:270:A:C8	2.30	0.66
6:CF:86:ARG:HH11	18:CR:63:TYR:HB3	1.55	0.66
10:CJ:44:THR:HG22	10:CJ:45:ARG:H	1.60	0.66
22:DA:36:G:O2'	22:DA:37:C:H5'	1.95	0.66
22:DA:77:G:O2'	22:DA:78:U:O4'	2.12	0.66
22:DA:92:U:O2'	22:DA:93:G:C5'	2.43	0.66
22:DA:505:A:O2'	22:DA:506:G:H5'	1.95	0.66
22:DA:657:U:O2'	22:DA:658:U:H5'	1.95	0.66
22:DA:1429:G:HO2'	22:DA:1430:G:H8	1.42	0.66
22:DA:1534:U:H2'	22:DA:1536:C:O2	1.95	0.66
22:DA:2314:A:C2	22:DA:2315:G:C5	2.82	0.66
22:DA:2331:G:N1	22:DA:2385:C:C4	2.63	0.66
22:DA:2540:C:C2	22:DA:2541:A:C8	2.83	0.66
24:DC:103:ILE:HD12	24:DC:104:LEU:H	1.61	0.66
58:DF:60:SER:C	58:DF:62:GLN:H	2.03	0.66
58:DF:107:VAL:N	58:DF:108:PRO:CD	2.58	0.66
28:DG:22:VAL:HG12	28:DG:23:ILE:H	1.60	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:17:ASN:OD1	34:DM:95:LEU:HB3	1.95	0.66
1:AA:261:U:OP2	20:AT:73:ARG:NH2	2.28	0.66
1:AA:414:A:O2'	1:AA:415:A:C5'	2.42	0.66
1:AA:794:A:H2'	1:AA:795:C:C6	2.30	0.66
4:AD:25:ARG:O	4:AD:26:ALA:HB2	1.94	0.66
11:AK:126:ARG:CA	21:AU:33:ARG:HH12	2.08	0.66
17:AQ:18:LYS:C	17:AQ:47:ASP:OD2	2.37	0.66
22:BA:141:G:C5'	22:BA:142:A:C8	2.79	0.66
22:BA:384:A:H2'	22:BA:385:C:H5'	1.77	0.66
25:BD:86:GLU:HA	25:BD:86:GLU:OE1	1.93	0.66
28:BG:18:ILE:CD1	28:BG:42:VAL:HG13	2.25	0.66
28:BG:85:LYS:HG2	28:BG:131:VAL:CG1	2.23	0.66
33:BL:101:ILE:HG23	33:BL:102:GLY:N	2.10	0.66
35:BN:24:MET:HE3	35:BN:44:LEU:HB2	1.78	0.66
38:BQ:69:ARG:HH21	38:BQ:69:ARG:CG	2.08	0.66
53:CA:532:A:C8	3:CC:192:TYR:CE2	2.83	0.66
53:CA:714:G:H2'	53:CA:715:A:C8	2.29	0.66
2:CB:128:LEU:HD22	2:CB:132:GLU:HG2	1.76	0.66
4:CD:2:ARG:NH2	4:CD:114:ARG:NH1	2.41	0.66
9:CI:9:GLY:HA3	9:CI:16:ALA:HB3	1.77	0.66
14:CN:13:VAL:HG22	14:CN:59:GLN:OE1	1.95	0.66
17:CQ:29:LYS:HE2	17:CQ:36:PHE:CE2	2.30	0.66
22:DA:128:C:O2'	22:DA:129:C:C6	2.46	0.66
22:DA:459:U:O2'	22:DA:460:A:H5'	1.95	0.66
22:DA:533:G:H2'	22:DA:534:U:C6	2.31	0.66
22:DA:553:G:H2'	22:DA:554:U:O4'	1.95	0.66
22:DA:792:A:H5''	22:DA:793:A:H5'	1.76	0.66
22:DA:1799:G:C8	24:DC:179:GLU:OE1	2.47	0.66
22:DA:1905:C:O4'	22:DA:1928:A:C2	2.48	0.66
22:DA:2313:C:HO2'	22:DA:2314:A:H8	1.39	0.66
22:DA:2313:C:O2'	22:DA:2314:A:H5'	1.95	0.66
22:DA:2376:A:H1'	36:DO:99:TYR:CZ	2.30	0.66
22:DA:2758:A:C2'	22:DA:2759:G:H5'	2.24	0.66
57:DB:75:G:H1	57:DB:102:G:N2	1.92	0.66
25:DD:28:GLU:HA	25:DD:185:ASN:O	1.95	0.66
58:DF:56:LEU:HD13	58:DF:56:LEU:O	1.94	0.66
58:DF:134:GLN:HG3	58:DF:149:ARG:O	1.95	0.66
38:DQ:50:ARG:O	38:DQ:54:ARG:HD3	1.95	0.66
40:DS:10:ALA:HB3	40:DS:101:SER:O	1.94	0.66
43:DV:80:HIS:CD2	43:DV:83:LYS:N	2.63	0.66
1:AA:56:U:H2'	1:AA:57:G:C8	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:370:C:O2'	1:AA:371:A:H5'	1.95	0.66
1:AA:511:C:O2'	1:AA:512:U:C5'	2.42	0.66
1:AA:1136:C:H5''	1:AA:1137:C:OP2	1.94	0.66
1:AA:1343:G:H2'	1:AA:1344:C:C6	2.31	0.66
1:AA:1427:C:O2'	1:AA:1428:A:H5'	1.95	0.66
3:AC:63:ILE:O	3:AC:98:ALA:HA	1.94	0.66
4:AD:60:VAL:HA	4:AD:63:ILE:CG2	2.26	0.66
4:AD:147:LYS:O	4:AD:149:LYS:N	2.28	0.66
8:AH:105:THR:HG21	8:AH:120:LEU:CD1	2.25	0.66
9:AI:38:PHE:HA	9:AI:41:GLU:OE1	1.96	0.66
17:AQ:13:SER:O	17:AQ:16:MET:HE2	1.95	0.66
18:AR:33:THR:HG23	18:AR:37:LYS:H	1.61	0.66
20:AT:53:MET:HG3	20:AT:54:GLN:N	2.10	0.66
22:BA:204:A:H4'	22:BA:205:G:OP1	1.96	0.66
22:BA:595:C:H2'	22:BA:596:U:C6	2.31	0.66
22:BA:802:A:H2'	22:BA:803:U:C6	2.29	0.66
22:BA:923:G:H4'	44:BW:25:PHE:CZ	2.31	0.66
22:BA:1184:U:H2'	22:BA:1185:G:O5'	1.95	0.66
22:BA:2840:C:O2'	22:BA:2841:C:H5'	1.95	0.66
31:BJ:2:LYS:HD3	31:BJ:2:LYS:H	1.61	0.66
34:BM:72:PRO:O	34:BM:91:TYR:O	2.12	0.66
37:BP:102:ARG:O	37:BP:103:THR:CG2	2.43	0.66
41:BT:39:THR:HG22	41:BT:41:ALA:CB	2.25	0.66
53:CA:177:G:O2'	53:CA:1448:C:C5'	2.42	0.66
53:CA:858:G:N7	62:CA:1822:HOH:O	2.27	0.66
53:CA:1160:G:O2'	53:CA:1161:C:H5'	1.94	0.66
53:CA:1202:U:O2'	53:CA:1203:C:C5'	2.44	0.66
2:CB:20:ARG:HH21	2:CB:38:HIS:CD2	2.11	0.66
3:CC:181:ILE:CG1	3:CC:202:PHE:HB2	2.24	0.66
6:CF:11:HIS:NE2	6:CF:54:LEU:HD21	2.11	0.66
10:CJ:32:THR:HG23	10:CJ:83:THR:OG1	1.94	0.66
22:DA:36:G:C6	22:DA:445:C:N4	2.63	0.66
22:DA:246:C:C2'	22:DA:247:G:H5'	2.25	0.66
22:DA:468:G:H5''	26:DE:55:SER:HB2	1.78	0.66
22:DA:524:G:H2'	22:DA:525:U:H6	1.60	0.66
22:DA:639:U:H2'	22:DA:640:C:C6	2.31	0.66
22:DA:867:C:O2'	22:DA:868:U:C5'	2.43	0.66
22:DA:1328:A:H2'	22:DA:1330:C:N4	2.10	0.66
22:DA:1342:A:N6	22:DA:1397:U:C5	2.64	0.66
22:DA:1597:A:O3'	22:DA:1598:A:H8	1.77	0.66
22:DA:2376:A:N3	36:DO:99:TYR:CE2	2.64	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2408:U:H5	62:DA:3599:HOH:O	1.78	0.66
22:DA:2638:G:H1'	22:DA:2778:A:N6	2.11	0.66
22:DA:2798:U:H5''	22:DA:2799:A:OP1	1.96	0.66
57:DB:69:G:N7	57:DB:70:C:C4	2.63	0.66
24:DC:42:ARG:NH2	24:DC:48:ILE:HD11	2.10	0.66
26:DE:122:GLU:HA	26:DE:190:ALA:HB2	1.77	0.66
31:DJ:58:ASN:OD1	31:DJ:127:GLY:HA2	1.96	0.66
33:DL:127:VAL:HG13	33:DL:132:ARG:HB2	1.77	0.66
37:DP:91:VAL:CG1	37:DP:96:LEU:HD11	2.22	0.66
39:DR:98:ILE:HG22	39:DR:98:ILE:O	1.93	0.66
42:DU:39:ASN:HB3	42:DU:62:ALA:HB3	1.76	0.66
44:DW:28:GLU:H	44:DW:31:LEU:CD2	2.08	0.66
1:AA:480:U:H5''	1:AA:481:G:OP2	1.95	0.66
1:AA:874:G:C2'	1:AA:875:U:H5'	2.25	0.66
3:AC:13:ILE:O	3:AC:15:LYS:N	2.28	0.66
7:AG:30:MET:HG2	7:AG:31:VAL:N	2.11	0.66
22:BA:512:G:N7	62:BA:3760:HOH:O	2.27	0.66
22:BA:1339:G:N2	22:BA:1603:A:H1'	2.11	0.66
24:BC:80:LEU:HD11	24:BC:109:LEU:HB2	1.76	0.66
29:BH:96:THR:C	29:BH:97:ARG:HG3	2.20	0.66
44:BW:37:VAL:CG2	44:BW:55:ASP:O	2.43	0.66
53:CA:87:C:O2'	53:CA:88:U:C4'	2.44	0.66
53:CA:120:A:C3'	53:CA:121:U:C5'	2.73	0.66
53:CA:765:G:C5	53:CA:812:G:C5	2.83	0.66
53:CA:1381:U:C4	54:CG:77:ARG:NH1	2.63	0.66
8:CH:54:THR:O	8:CH:56:PRO:HD3	1.95	0.66
22:DA:73:A:H8	22:DA:73:A:O5'	1.78	0.66
22:DA:815:C:P	39:DR:85:LYS:HE2	2.34	0.66
22:DA:2094:A:P	29:DH:22:LYS:HD2	2.35	0.66
22:DA:2339:C:O2'	22:DA:2340:A:C8	2.44	0.66
22:DA:2734:A:H2'	22:DA:2735:G:H5'	1.76	0.66
57:DB:13:G:N2	57:DB:16:G:C4	2.64	0.66
25:DD:169:ARG:O	25:DD:170:VAL:HG22	1.96	0.66
26:DE:148:ILE:HA	26:DE:187:VAL:HB	1.76	0.66
32:DK:54:LYS:H	32:DK:54:LYS:HD2	1.61	0.66
35:DN:98:LEU:HD21	48:D0:53:VAL:HG11	1.78	0.66
37:DP:92:ARG:HG2	37:DP:92:ARG:O	1.93	0.66
38:DQ:87:VAL:HG11	39:DR:52:PRO:CG	2.23	0.66
41:DT:62:VAL:HG12	41:DT:63:VAL:N	2.11	0.66
1:AA:82:G:N2	1:AA:84:U:N3	2.42	0.66
1:AA:322:C:H5	1:AA:328:C:C5	2.13	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:330:C:H6	1:AA:330:C:H5''	1.60	0.66
1:AA:587:G:H4'	8:AH:3:GLN:HA	1.78	0.66
1:AA:1269:A:H2	1:AA:1312:G:N3	1.94	0.66
13:AM:19:THR:HA	13:AM:24:VAL:HG23	1.77	0.66
16:AP:22:ALA:HB2	16:AP:32:PHE:CA	2.22	0.66
22:BA:181:A:H1'	22:BA:435:C:H5'	1.78	0.66
22:BA:364:C:H2'	22:BA:365:U:C6	2.31	0.66
22:BA:1238:G:C2'	22:BA:1239:G:H5'	2.25	0.66
22:BA:2134:A:N6	22:BA:2135:A:N6	2.43	0.66
22:BA:2773:C:OP1	25:BD:171:THR:CG2	2.44	0.66
32:BK:18:ARG:HH11	32:BK:18:ARG:CG	1.93	0.66
35:BN:33:ILE:HD11	35:BN:118:ARG:CD	2.26	0.66
37:BP:50:ARG:CD	37:BP:51:ASN:N	2.58	0.66
53:CA:84:U:N3	53:CA:87:C:H1'	2.10	0.66
53:CA:140:U:H2'	53:CA:141:G:O4'	1.95	0.66
53:CA:254:G:N2	17:CQ:17:GLU:HG3	2.06	0.66
53:CA:927:G:N2	53:CA:1391:U:H1'	2.09	0.66
53:CA:1067:A:H4'	53:CA:1068:G:O5'	1.94	0.66
53:CA:1430:A:H2'	53:CA:1431:A:O4'	1.95	0.66
5:CE:132:PRO:O	5:CE:136:VAL:HG12	1.96	0.66
6:CF:92:THR:HG22	6:CF:94:HIS:N	2.01	0.66
54:CG:74:VAL:HG11	54:CG:143:MET:HB2	1.76	0.66
18:CR:19:GLU:CD	18:CR:20:ILE:N	2.52	0.66
22:DA:443:A:N6	26:DE:36:ALA:HB1	2.10	0.66
22:DA:574:A:H4'	22:DA:575:A:H5'	1.76	0.66
22:DA:1328:A:H2'	22:DA:1330:C:C4	2.31	0.66
57:DB:69:G:H3'	57:DB:70:C:C6	2.31	0.66
24:DC:8:THR:O	24:DC:9:SER:CB	2.44	0.66
58:DF:48:LEU:HG	58:DF:49:LEU:CD2	2.24	0.66
33:DL:142:ILE:HG22	33:DL:144:GLU:H	1.60	0.66
36:DO:51:ALA:HB3	36:DO:78:VAL:CG2	2.26	0.66
38:DQ:40:LYS:HD2	38:DQ:44:TYR:CE2	2.30	0.66
44:DW:31:LEU:C	44:DW:33:GLY:H	2.04	0.66
1:AA:82:G:N2	1:AA:84:U:H3	1.94	0.66
1:AA:1210:C:H2'	1:AA:1211:U:H5'	1.77	0.66
2:AB:174:GLU:O	2:AB:178:LEU:HB2	1.95	0.66
5:AE:93:VAL:HG22	5:AE:110:MET:HE1	1.78	0.66
22:BA:1061:U:C5	30:BI:9:LYS:HG3	2.31	0.66
22:BA:1666:G:O2'	22:BA:1667:G:H5'	1.96	0.66
22:BA:2196:C:O3'	4:CD:150:LYS:HD2	1.96	0.66
22:BA:2765:A:H2'	22:BA:2765:A:N3	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:109:A:H2'	23:BB:110:C:C6	2.31	0.66
24:BC:20:ASN:CB	24:BC:23:LEU:HD23	2.26	0.66
24:BC:90:ILE:CG2	24:BC:102:TYR:CD1	2.79	0.66
28:BG:15:ASP:CG	28:BG:16:VAL:H	2.03	0.66
28:BG:84:LYS:HB3	28:BG:132:LEU:O	1.96	0.66
32:BK:51:LYS:O	32:BK:51:LYS:HD2	1.95	0.66
41:BT:51:PHE:O	41:BT:52:GLU:HG2	1.96	0.66
2:CB:160:LEU:HD13	2:CB:180:ILE:CG2	2.26	0.66
11:CK:74:LYS:HA	11:CK:78:ILE:CD1	2.22	0.66
15:CO:2:LEU:HD13	15:CO:34:GLN:HG2	1.78	0.66
15:CO:38:LEU:O	15:CO:41:HIS:HB3	1.96	0.66
22:DA:1014:A:O2'	22:DA:1015:U:H5'	1.96	0.66
22:DA:1139:G:N2	22:DA:1140:C:C2	2.63	0.66
22:DA:1343:G:O2'	22:DA:1344:U:C6	2.46	0.66
22:DA:2102:G:H2'	22:DA:2103:C:H5'	1.78	0.66
22:DA:2197:U:C5	22:DA:2224:G:C6	2.84	0.66
25:DD:175:LEU:O	25:DD:176:ASP:HB2	1.95	0.66
28:DG:71:LEU:HD22	28:DG:74:MET:HE2	1.77	0.66
35:DN:12:ARG:HG3	35:DN:13:ASN:H	1.59	0.66
35:DN:14:SER:C	35:DN:16:HIS:H	2.03	0.66
40:DS:33:LEU:HA	40:DS:36:LEU:HD23	1.76	0.66
41:DT:34:VAL:HG12	41:DT:34:VAL:O	1.95	0.66
2:AB:42:LEU:CG	2:AB:43:GLU:HG3	2.22	0.66
5:AE:152:VAL:CB	5:AE:155:LYS:HZ2	2.09	0.66
17:AQ:32:ILE:HD12	17:AQ:32:ILE:N	2.10	0.66
17:AQ:55:GLY:HA3	17:AQ:82:VAL:HG11	1.76	0.66
22:BA:215:G:C4'	22:BA:216:A:H4'	2.25	0.66
22:BA:1159:U:C2'	22:BA:1160:G:H5'	2.24	0.66
22:BA:1609:A:H5''	62:BA:3638:HOH:O	1.95	0.66
22:BA:1906:G:H2'	22:BA:1907:G:O5'	1.96	0.66
31:BJ:124:VAL:HG23	31:BJ:125:TYR:N	2.07	0.66
32:BK:99:ILE:HG22	32:BK:119:ALA:HA	1.77	0.66
44:BW:41:GLY:O	44:BW:42:THR:C	2.38	0.66
53:CA:277:C:H2'	53:CA:278:G:H8	1.60	0.66
2:CB:160:LEU:HB2	2:CB:182:VAL:HG12	1.78	0.66
12:CL:97:VAL:O	12:CL:97:VAL:CG2	2.41	0.66
55:CM:12:LYS:HA	55:CM:12:LYS:CE	2.21	0.66
17:CQ:59:GLU:HG2	17:CQ:76:ARG:HG2	1.76	0.66
22:DA:249:C:C5'	22:DA:2394:C:O2'	2.43	0.66
22:DA:323:C:H6	26:DE:165:HIS:CE1	2.14	0.66
22:DA:705:A:N6	22:DA:726:G:HI'	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:786:C:H2'	22:DA:787:C:H5'	1.78	0.66
22:DA:1824:G:O2'	24:DC:245:THR:HG22	1.95	0.66
22:DA:1965:C:H5''	22:DA:1965:C:C6	2.30	0.66
22:DA:2225:A:H4'	22:DA:2226:C:O5'	1.94	0.66
24:DC:79:ARG:HD2	24:DC:92:LEU:HD22	1.78	0.66
26:DE:69:ARG:O	26:DE:70:SER:HB3	1.95	0.66
26:DE:90:GLN:OE1	26:DE:90:GLN:HA	1.95	0.66
28:DG:18:ILE:CD1	28:DG:42:VAL:HG13	2.23	0.66
38:DQ:71:ASN:HD21	38:DQ:106:THR:HA	1.60	0.66
1:AA:785:G:H2'	1:AA:786:G:H5'	1.78	0.66
6:AF:4:TYR:HA	6:AF:91:ARG:O	1.96	0.66
11:AK:109:ILE:HG21	21:AU:16:ARG:NE	2.11	0.66
22:BA:1000:A:N6	22:BA:1154:G:H2'	2.11	0.66
22:BA:1059:G:H5''	22:BA:1060:U:H3'	1.78	0.66
22:BA:1585:C:O2'	22:BA:1586:A:H5'	1.96	0.66
22:BA:2414:G:O2'	22:BA:2415:G:H5'	1.96	0.66
24:BC:93:VAL:O	24:BC:94:LEU:HB3	1.96	0.66
25:BD:94:GLN:O	25:BD:95:SER:HB2	1.94	0.66
26:BE:193:VAL:O	26:BE:197:GLU:HB2	1.95	0.66
38:BQ:65:ASN:O	38:BQ:69:ARG:HB3	1.96	0.66
53:CA:711:G:O2'	53:CA:712:A:H5'	1.96	0.66
8:CH:17:GLN:HE21	8:CH:71:VAL:HG23	1.57	0.66
9:CI:49:GLN:N	9:CI:50:PRO:CD	2.58	0.66
17:CQ:13:SER:HB3	17:CQ:21:VAL:HB	1.76	0.66
22:DA:187:G:C2	22:DA:210:C:C2	2.83	0.66
22:DA:301:G:C6	22:DA:302:C:N4	2.64	0.66
22:DA:372:G:N2	22:DA:400:G:H2'	2.11	0.66
22:DA:589:U:C2'	22:DA:590:A:H5'	2.26	0.66
22:DA:649:G:H2'	22:DA:650:C:H6	1.58	0.66
22:DA:1006:C:H6	22:DA:1006:C:O5'	1.79	0.66
22:DA:1090:A:H3'	22:DA:1091:G:H5''	1.76	0.66
22:DA:1545:A:C2'	22:DA:1546:G:H5'	2.26	0.66
22:DA:1919:A:O2'	22:DA:1920:C:C5'	2.44	0.66
22:DA:2298:A:H5'	22:DA:2322:A:O2'	1.96	0.66
28:DG:7:PRO:O	28:DG:8:VAL:HB	1.96	0.66
34:DM:33:LEU:HB2	34:DM:117:PHE:CE2	2.31	0.66
37:DP:52:ARG:HH11	37:DP:52:ARG:HG2	1.61	0.66
40:DS:17:VAL:HG11	40:DS:103:ILE:HG13	1.76	0.66
48:D0:38:LEU:HB2	48:D0:41:HIS:CE1	2.30	0.66
1:AA:487:A:O2'	1:AA:488:C:H5'	1.96	0.66
5:AE:75:LEU:HD21	5:AE:119:VAL:HG12	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:155:LYS:H	5:AE:155:LYS:CD	2.08	0.66
6:AF:67:PRO:HG2	6:AF:70:VAL:HG22	1.76	0.66
10:AJ:65:TYR:HB3	14:AN:95:LEU:CD1	2.26	0.66
10:AJ:80:THR:CB	10:AJ:83:THR:HG22	2.25	0.66
16:AP:20:VAL:HG22	16:AP:21:VAL:N	2.10	0.66
25:BD:107:VAL:HG13	25:BD:203:VAL:CG2	2.25	0.66
31:BJ:124:VAL:O	31:BJ:125:TYR:HB2	1.95	0.66
36:BO:79:ALA:HB2	36:BO:110:ALA:HA	1.76	0.66
40:BS:71:VAL:HG22	40:BS:71:VAL:O	1.96	0.66
41:BT:87:LEU:HB2	41:BT:91:GLN:CG	2.26	0.66
43:BV:80:HIS:CD2	43:BV:83:LYS:CB	2.79	0.66
53:CA:960:U:H4'	53:CA:961:U:H5''	1.77	0.66
3:CC:10:ARG:HH21	3:CC:181:ILE:HB	1.61	0.66
5:CE:55:VAL:O	5:CE:59:ILE:HG22	1.95	0.66
6:CF:88:MET:HG2	6:CF:90:MET:SD	2.35	0.66
17:CQ:19:SER:HB3	17:CQ:70:LYS:HZ1	1.58	0.66
17:CQ:75:VAL:O	17:CQ:76:ARG:HB3	1.95	0.66
22:DA:455:C:H42	22:DA:473:G:H5'	1.60	0.66
22:DA:674:G:H4'	26:DE:69:ARG:HB3	1.77	0.66
22:DA:1343:G:H2'	22:DA:1344:U:H5	1.60	0.66
22:DA:1827:U:H2'	22:DA:1828:G:O4'	1.95	0.66
22:DA:2214:C:H2'	22:DA:2215:C:H6	1.60	0.66
57:DB:67:G:O2'	57:DB:68:C:H6	1.78	0.66
24:DC:13:ARG:HG2	24:DC:14:HIS:CD2	2.31	0.66
25:DD:29:VAL:HB	25:DD:98:VAL:CG1	2.26	0.66
58:DF:135:ILE:HD12	58:DF:135:ILE:N	2.11	0.66
28:DG:120:ILE:HG12	28:DG:134:GLY:HA3	1.77	0.66
34:DM:27:SER:N	34:DM:66:ARG:HH22	1.92	0.66
9:AI:79:ARG:O	9:AI:83:THR:HG23	1.96	0.66
22:BA:877:A:C6	22:BA:899:A:C6	2.83	0.66
22:BA:1510:G:O2'	22:BA:1511:G:H5'	1.96	0.66
22:BA:1539:U:C2	22:BA:1540:G:C8	2.84	0.66
22:BA:1655:A:H61	22:BA:2005:A:H1'	1.61	0.66
22:BA:1871:A:C8	22:BA:1872:A:C6	2.84	0.66
25:BD:110:THR:CG2	25:BD:171:THR:HG22	2.26	0.66
30:BI:42:ASN:HA	30:BI:45:THR:HB	1.78	0.66
44:BW:26:GLY:O	44:BW:27:GLY:C	2.39	0.66
53:CA:202:G:HO2'	53:CA:468:A:H8	1.44	0.66
53:CA:404:G:O2'	53:CA:405:U:H5'	1.96	0.66
53:CA:695:A:H2'	53:CA:696:A:C8	2.31	0.66
53:CA:824:G:O2'	53:CA:825:A:H5'	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1072:G:H2'	53:CA:1073:U:H6	1.59	0.66
53:CA:1186:G:H4'	9:CI:111:GLU:OE1	1.96	0.66
53:CA:1250:A:N3	53:CA:1287:A:N6	2.44	0.66
3:CC:190:THR:CG2	3:CC:191:THR:H	2.04	0.66
5:CE:38:VAL:HG12	5:CE:39:GLY:N	2.11	0.66
6:CF:61:LEU:HD13	6:CF:62:MET:N	2.08	0.66
9:CI:38:PHE:CE2	9:CI:71:ILE:HG22	2.30	0.66
11:CK:74:LYS:O	11:CK:74:LYS:HG2	1.95	0.66
22:DA:1038:G:C2'	22:DA:1039:A:H5''	2.26	0.66
22:DA:1126:A:OP1	22:DA:1126:A:H8	1.79	0.66
22:DA:1717:A:H2'	22:DA:1718:G:O4'	1.96	0.66
57:DB:42:C:N4	58:DF:87:LYS:NZ	2.43	0.66
57:DB:67:G:HO2'	57:DB:68:C:H6	1.43	0.66
24:DC:129:LEU:C	24:DC:188:ARG:HG3	2.21	0.66
25:DD:149:ASN:O	25:DD:151:THR:N	2.29	0.66
30:DI:105:LEU:HD23	30:DI:105:LEU:O	1.96	0.66
34:DM:81:ARG:NH2	34:DM:84:LYS:HE2	2.10	0.66
35:DN:24:MET:HE1	35:DN:40:LYS:HD2	1.78	0.66
35:DN:93:GLY:O	35:DN:116:VAL:HG21	1.96	0.66
45:DX:39:VAL:HG22	45:DX:44:ARG:O	1.97	0.66
1:AA:414:A:H2'	1:AA:415:A:C8	2.30	0.65
1:AA:1002:G:H2'	1:AA:1003:G:O4'	1.96	0.65
1:AA:1049:U:O4	14:AN:1:ALA:HB1	1.95	0.65
9:AI:123:ARG:HD3	9:AI:124:PRO:HD2	1.78	0.65
13:AM:39:ALA:HB3	13:AM:42:VAL:HG13	1.76	0.65
22:BA:335:C:O2'	22:BA:336:C:H5'	1.95	0.65
22:BA:1277:G:H4'	35:BN:20:MET:HE2	1.78	0.65
22:BA:1289:C:H2'	22:BA:1290:C:C6	2.30	0.65
22:BA:1935:G:H1	22:BA:1962:C:H2'	1.61	0.65
22:BA:2154:A:H2'	22:BA:2155:U:O4'	1.95	0.65
22:BA:2637:U:C3'	22:BA:2638:G:H5'	2.21	0.65
35:BN:71:ARG:HH21	35:BN:71:ARG:HG2	1.61	0.65
37:BP:3:ILE:HD13	37:BP:3:ILE:C	2.20	0.65
41:BT:29:THR:HA	41:BT:86:THR:N	2.12	0.65
53:CA:223:A:H2'	53:CA:224:U:C6	2.30	0.65
53:CA:940:C:H5'	54:CG:101:ARG:HH22	1.60	0.65
9:CI:6:TYR:HE2	9:CI:17:ARG:HA	1.60	0.65
10:CJ:30:LYS:HG3	10:CJ:36:VAL:HG22	1.77	0.65
10:CJ:52:LEU:HD23	10:CJ:62:ARG:CG	2.26	0.65
15:CO:23:SER:O	15:CO:26:VAL:HB	1.95	0.65
22:DA:558:U:H5''	31:DJ:111:LYS:HD2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:668:A:C5	22:DA:670:A:N7	2.64	0.65
22:DA:1069:A:O2'	22:DA:1071:G:H5''	1.95	0.65
22:DA:1338:G:O2'	41:DT:18:GLU:HG3	1.95	0.65
22:DA:1355:G:C2'	22:DA:1356:G:H5'	2.26	0.65
22:DA:1816:C:H2'	24:DC:61:TYR:CZ	2.31	0.65
22:DA:1865:U:C4	22:DA:1875:G:C2	2.84	0.65
22:DA:2260:C:H2'	22:DA:2261:C:H6	1.59	0.65
22:DA:2624:G:C2	22:DA:2625:G:H1'	2.31	0.65
24:DC:239:PHE:HD1	24:DC:240:GLY:H	1.41	0.65
26:DE:119:ILE:O	26:DE:119:ILE:HG13	1.96	0.65
58:DF:34:THR:O	58:DF:35:LEU:HB2	1.95	0.65
30:DI:102:ARG:NH1	30:DI:105:LEU:HD13	2.11	0.65
33:DL:88:GLY:O	33:DL:89:VAL:HG12	1.95	0.65
36:DO:7:ARG:HA	36:DO:10:ARG:NH2	2.11	0.65
45:DX:63:ILE:HD13	45:DX:64:ASP:H	1.61	0.65
1:AA:978:A:OP2	1:AA:1362:A:N6	2.29	0.65
12:AL:21:PRO:O	12:AL:23:LEU:N	2.29	0.65
22:BA:1738:G:HO2'	22:BA:1739:A:H8	1.44	0.65
28:BG:30:GLY:O	28:BG:32:LEU:N	2.29	0.65
28:BG:116:LEU:HB3	28:BG:120:ILE:HG23	1.78	0.65
35:BN:71:ARG:HH21	35:BN:71:ARG:HG3	1.61	0.65
36:BO:36:TYR:CD2	36:BO:36:TYR:N	2.63	0.65
45:BX:76:LYS:CG	45:BX:77:TYR:H	2.09	0.65
53:CA:205:A:C5	53:CA:206:C:N4	2.64	0.65
53:CA:362:G:OP1	12:CL:57:THR:HG22	1.96	0.65
53:CA:457:G:N3	53:CA:457:G:H2'	2.11	0.65
53:CA:784:A:H2'	53:CA:785:G:H8	1.59	0.65
53:CA:1082:A:C2'	53:CA:1083:U:H5'	2.25	0.65
2:CB:206:ILE:CA	2:CB:209:VAL:HG22	2.18	0.65
3:CC:80:GLY:O	3:CC:83:VAL:HG22	1.96	0.65
12:CL:4:ASN:HD21	17:CQ:35:LYS:HE3	1.62	0.65
15:CO:63:ARG:HH22	22:DA:715:A:H5'	1.60	0.65
56:CP:70:ARG:O	56:CP:74:LEU:HG	1.96	0.65
22:DA:247:G:H4'	22:DA:386:G:C4	2.30	0.65
22:DA:329:G:H4'	22:DA:330:A:OP1	1.95	0.65
22:DA:871:U:OP1	34:DM:4:PRO:HA	1.97	0.65
22:DA:1304:A:O2'	22:DA:1305:C:H6	1.78	0.65
22:DA:2458:G:O2'	22:DA:2460:U:C5	2.49	0.65
25:DD:28:GLU:OE2	25:DD:30:GLU:HG3	1.96	0.65
58:DF:43:ILE:HG23	58:DF:44:ALA:N	2.06	0.65
48:D0:4:GLN:HG2	48:D0:4:GLN:O	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D1:10:LEU:HD23	49:D1:20:TYR:HB3	1.78	0.65
1:AA:68:G:H5'	1:AA:171:A:O2'	1.96	0.65
1:AA:189:A:O2'	1:AA:190:A:H5'	1.96	0.65
1:AA:1069:C:H4'	1:AA:1192:C:O2	1.96	0.65
1:AA:1151:A:HO2'	1:AA:1152:A:H8	1.44	0.65
2:AB:74:ALA:O	2:AB:75:ALA:HB2	1.96	0.65
22:BA:302:C:O2'	22:BA:303:G:C5'	2.44	0.65
22:BA:572:A:C2	22:BA:2033:A:C2	2.85	0.65
22:BA:1495:A:H2'	22:BA:1496:A:C8	2.32	0.65
22:BA:2136:G:H2'	22:BA:2137:U:C5	2.27	0.65
24:BC:180:MET:CG	24:BC:268:ARG:HH11	2.06	0.65
24:BC:259:ASN:C	24:BC:261:ARG:H	2.04	0.65
36:BO:48:LEU:HD23	36:BO:48:LEU:N	2.12	0.65
38:BQ:82:LEU:O	38:BQ:88:GLU:HB3	1.95	0.65
41:BT:24:MET:HG3	41:BT:29:THR:CG2	2.26	0.65
43:BV:21:ARG:HA	43:BV:25:LYS:O	1.96	0.65
53:CA:39:G:H2'	53:CA:40:C:H6	1.61	0.65
53:CA:859:G:H2'	53:CA:860:A:C8	2.31	0.65
53:CA:989:U:H2'	53:CA:990:C:C5'	2.08	0.65
3:CC:133:MET:CE	3:CC:152:VAL:HG13	2.26	0.65
54:CG:42:VAL:HG12	54:CG:43:TYR:HD2	1.61	0.65
11:CK:126:ARG:CB	21:CU:33:ARG:HD2	2.21	0.65
12:CL:46:SER:O	12:CL:47:ALA:HB2	1.96	0.65
20:CT:34:VAL:HG12	20:CT:78:LEU:HD21	1.78	0.65
22:DA:116:C:H5''	22:DA:128:C:H41	1.62	0.65
22:DA:126:A:P	50:D2:19:ARG:HG3	2.36	0.65
22:DA:192:C:C2'	22:DA:193:U:H5'	2.27	0.65
22:DA:325:G:O6	22:DA:338:G:C2	2.49	0.65
22:DA:799:G:OP2	22:DA:800:A:H3'	1.96	0.65
22:DA:1432:G:O2'	22:DA:1433:A:H5'	1.97	0.65
22:DA:1797:G:O3'	24:DC:255:LYS:O	2.15	0.65
22:DA:2531:A:C5'	28:DG:156:TYR:CZ	2.79	0.65
22:DA:2577:A:H5''	22:DA:2578:G:H5'	1.79	0.65
22:DA:2822:G:H2'	22:DA:2823:A:H5''	1.78	0.65
57:DB:18:G:C2	57:DB:67:G:O6	2.50	0.65
40:DS:8:ARG:HA	40:DS:102:HIS:ND1	2.12	0.65
41:DT:13:ALA:O	41:DT:32:LEU:HB2	1.96	0.65
46:DY:20:ASN:ND2	46:DY:50:VAL:HG22	2.11	0.65
3:AC:133:MET:HB3	3:AC:150:VAL:HG21	1.79	0.65
4:AD:84:ASN:HD22	4:AD:87:GLU:HG2	1.60	0.65
4:AD:173:ASP:O	4:AD:174:ALA:HB2	1.95	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:196:GLU:C	4:AD:198:LEU:H	2.04	0.65
7:AG:146:ALA:C	7:AG:148:LYS:H	2.05	0.65
8:AH:63:LYS:CB	8:AH:70:VAL:HG21	2.26	0.65
21:AU:19:LYS:HE2	21:AU:19:LYS:N	2.11	0.65
22:BA:2416:C:H2'	22:BA:2417:C:H6	1.61	0.65
22:BA:2531:A:H5'	28:BG:156:TYR:CE2	2.31	0.65
22:BA:2557:G:H2'	22:BA:2558:C:C6	2.32	0.65
26:BE:4:VAL:HG12	26:BE:4:VAL:O	1.96	0.65
28:BG:25:ILE:HG22	28:BG:78:VAL:HG21	1.79	0.65
31:BJ:31:GLU:O	31:BJ:35:ARG:HG3	1.96	0.65
32:BK:10:VAL:HG21	32:BK:16:ALA:CB	2.15	0.65
37:BP:54:LEU:HA	37:BP:76:HIS:CD2	2.31	0.65
53:CA:672:U:H2'	53:CA:673:A:H8	1.61	0.65
53:CA:1024:G:H2'	53:CA:1025:U:O4'	1.96	0.65
53:CA:1071:C:H4'	5:CE:53:ARG:NH1	2.11	0.65
53:CA:1480:A:O2'	53:CA:1481:U:H5'	1.95	0.65
54:CG:22:LEU:HD23	54:CG:22:LEU:C	2.21	0.65
54:CG:74:VAL:CG1	54:CG:143:MET:HB2	2.26	0.65
12:CL:58:ASN:CG	12:CL:60:PHE:HD1	2.05	0.65
14:CN:33:VAL:HG22	14:CN:40:ARG:NH2	2.09	0.65
14:CN:96:LYS:HD2	14:CN:96:LYS:H	1.61	0.65
22:DA:84:A:C5	22:DA:103:A:N6	2.65	0.65
22:DA:477:A:C2'	22:DA:478:A:H8	2.09	0.65
22:DA:962:G:H3'	22:DA:962:G:OP1	1.95	0.65
22:DA:1416:G:C6	22:DA:1417:C:N4	2.65	0.65
22:DA:1439:A:C8	22:DA:1440:U:O4'	2.50	0.65
22:DA:2385:C:O2'	22:DA:2386:A:H8	1.77	0.65
24:DC:95:TYR:C	24:DC:97:ASP:H	2.05	0.65
30:DI:18:ASN:HB3	30:DI:19:PRO:HD3	1.77	0.65
30:DI:52:LEU:HD12	30:DI:53:PRO:HD2	1.78	0.65
33:DL:90:VAL:HB	33:DL:122:VAL:HA	1.78	0.65
1:AA:51:A:H4'	1:AA:52:C:O5'	1.96	0.65
15:AO:80:LEU:HD11	15:AO:84:LEU:HD22	1.78	0.65
22:BA:7:G:H2'	22:BA:8:C:C6	2.31	0.65
22:BA:285:G:N3	22:BA:285:G:H2'	2.11	0.65
22:BA:1402:U:H2'	22:BA:1403:A:O5'	1.96	0.65
22:BA:2136:G:O2'	22:BA:2137:U:C6	2.49	0.65
25:BD:4:LEU:HD13	25:BD:100:LEU:HD23	1.78	0.65
27:BF:30:VAL:CG1	27:BF:96:TRP:CH2	2.80	0.65
27:BF:46:LYS:HD2	27:BF:46:LYS:H	1.62	0.65
28:BG:8:VAL:CG1	28:BG:9:VAL:N	2.58	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:2:GLN:HA	29:BH:20:ASN:HA	1.78	0.65
33:BL:104:GLN:HA	33:BL:104:GLN:NE2	2.11	0.65
37:BP:105:LYS:HA	37:BP:108:ARG:NH2	2.11	0.65
53:CA:1169:A:H2'	53:CA:1170:A:H8	1.62	0.65
10:CJ:11:LYS:HB3	10:CJ:71:LEU:HD13	1.77	0.65
22:DA:125:A:H4'	22:DA:126:A:OP2	1.96	0.65
22:DA:247:G:C5	22:DA:249:C:H1'	2.31	0.65
22:DA:745:G:H5''	22:DA:746:U:OP2	1.97	0.65
22:DA:1533:C:C2'	22:DA:1534:U:H5'	2.27	0.65
22:DA:1567:G:H5''	24:DC:84:PRO:CB	2.26	0.65
22:DA:2353:G:H1'	44:DW:30:VAL:CG1	2.27	0.65
26:DE:139:LYS:HB2	26:DE:139:LYS:HZ3	1.61	0.65
28:DG:162:ARG:HB2	28:DG:166:GLU:HB3	1.78	0.65
34:DM:49:ALA:O	34:DM:120:ALA:HB1	1.97	0.65
43:DV:14:LYS:HG3	43:DV:18:ARG:HD2	1.78	0.65
1:AA:339:C:H2'	1:AA:340:U:C6	2.30	0.65
1:AA:978:A:HO2'	1:AA:1322:C:H5	1.43	0.65
3:AC:17:TRP:CD1	14:AN:90:GLY:HA2	2.31	0.65
6:AF:55:HIS:O	6:AF:56:LYS:HB2	1.95	0.65
12:AL:35:ARG:HB2	12:AL:37:TYR:CE1	2.31	0.65
20:AT:8:LYS:O	20:AT:11:ILE:HG23	1.96	0.65
20:AT:67:HIS:HB3	20:AT:68:LYS:NZ	2.11	0.65
22:BA:26:G:H1'	22:BA:514:A:H61	1.61	0.65
22:BA:563:A:C2	22:BA:564:C:C2	2.85	0.65
22:BA:742:A:H2'	22:BA:743:A:C8	2.32	0.65
22:BA:1303:G:H2'	22:BA:1304:A:H8	1.61	0.65
22:BA:1682:G:O2'	22:BA:1683:U:H5'	1.97	0.65
22:BA:1936:A:C2	22:BA:1943:U:C5	2.84	0.65
23:BB:28:C:O2'	23:BB:29:A:H5'	1.96	0.65
31:BJ:44:TYR:O	31:BJ:45:THR:HB	1.95	0.65
38:BQ:91:ARG:HH21	38:BQ:93:ILE:HD13	1.60	0.65
38:BQ:97:ILE:HD11	38:BQ:105:PHE:HA	1.78	0.65
40:BS:1:MET:HE2	40:BS:1:MET:HA	1.78	0.65
53:CA:505:G:H2'	53:CA:506:G:C8	2.30	0.65
53:CA:1040:U:O2'	53:CA:1041:G:H5'	1.96	0.65
53:CA:1408:A:C2	53:CA:1492:A:N6	2.64	0.65
54:CG:99:ALA:HB3	54:CG:100:MET:CE	2.27	0.65
11:CK:110:THR:HG22	21:CU:4:LYS:HA	1.79	0.65
12:CL:3:VAL:CG2	12:CL:4:ASN:H	2.09	0.65
56:CP:75:ILE:CA	56:CP:78:VAL:HG23	2.25	0.65
22:DA:273:G:O2'	22:DA:274:C:O4'	2.13	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:602:A:H1'	22:DA:656:G:H22	1.61	0.65
22:DA:655:A:O2'	22:DA:656:G:C8	2.49	0.65
22:DA:672:C:H5'	22:DA:672:C:H6	1.62	0.65
22:DA:699:A:H2'	22:DA:700:G:O4'	1.96	0.65
22:DA:752:A:C6	22:DA:1781:U:H1'	2.32	0.65
22:DA:861:A:O2'	22:DA:862:G:C5'	2.45	0.65
22:DA:1024:G:H2'	22:DA:1025:G:C8	2.31	0.65
25:DD:208:LYS:O	25:DD:209:ALA:CB	2.44	0.65
58:DF:59:ILE:HD13	58:DF:137:PHE:CZ	2.30	0.65
31:DJ:84:ILE:O	31:DJ:84:ILE:HG23	1.95	0.65
33:DL:3:LEU:C	33:DL:3:LEU:HD12	2.20	0.65
1:AA:502:A:H2'	1:AA:503:C:C6	2.31	0.65
1:AA:1142:G:C2	1:AA:1143:G:H1'	2.31	0.65
1:AA:1468:A:C3'	1:AA:1469:C:H5''	2.22	0.65
10:AJ:10:LEU:O	10:AJ:71:LEU:HD13	1.97	0.65
21:AU:41:THR:O	21:AU:45:LYS:HB2	1.97	0.65
25:BD:91:THR:C	25:BD:93:GLY:N	2.55	0.65
27:BF:132:ARG:O	27:BF:133:GLU:CB	2.44	0.65
31:BJ:3:THR:HG21	38:BQ:60:TRP:NE1	2.12	0.65
35:BN:55:ALA:HA	35:BN:80:PHE:CE1	2.32	0.65
39:BR:4:VAL:CG2	39:BR:39:LEU:HG	2.26	0.65
39:BR:25:LEU:O	39:BR:66:HIS:HE1	1.79	0.65
39:BR:49:ILE:HB	39:BR:51:VAL:O	1.97	0.65
41:BT:24:MET:HE3	41:BT:24:MET:HA	1.78	0.65
44:BW:13:ARG:HG3	44:BW:14:ASP:N	2.10	0.65
53:CA:86:G:H1'	53:CA:87:C:O5'	1.96	0.65
53:CA:615:G:H2'	53:CA:616:G:H8	1.61	0.65
53:CA:1148:U:HO2'	53:CA:1149:C:H5'	1.58	0.65
53:CA:1262:C:H2'	53:CA:1263:C:H5'	1.77	0.65
4:CD:186:GLU:O	4:CD:187:ARG:HB2	1.96	0.65
8:CH:59:GLU:O	8:CH:60:LEU:HD12	1.96	0.65
12:CL:106:VAL:CG2	12:CL:116:TYR:HB3	2.26	0.65
56:CP:1:MET:HA	56:CP:1:MET:CE	2.26	0.65
17:CQ:47:ASP:HB3	17:CQ:74:LEU:HB3	1.79	0.65
22:DA:217:A:O2'	22:DA:218:A:O4'	2.12	0.65
22:DA:804:A:H2'	22:DA:806:C:C4	2.32	0.65
22:DA:870:U:C2'	22:DA:871:U:H5'	2.27	0.65
22:DA:956:G:C2	22:DA:962:G:O6	2.50	0.65
22:DA:1760:C:O2'	22:DA:1761:C:H5'	1.96	0.65
22:DA:2250:G:N2	34:DM:82:MET:HB2	2.12	0.65
22:DA:2798:U:H5'	22:DA:2800:A:C5	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2834:G:C1'	22:DA:2879:A:N6	2.59	0.65
24:DC:144:GLU:HA	24:DC:151:GLY:CA	2.17	0.65
32:DK:19:VAL:HG12	32:DK:41:ILE:CG1	2.27	0.65
36:DO:23:ALA:HB1	36:DO:90:VAL:HG12	1.78	0.65
42:DU:73:ASN:HB3	42:DU:95:PHE:CE2	2.32	0.65
43:DV:26:PHE:CE2	43:DV:42:LEU:HD12	2.30	0.65
51:D3:57:VAL:O	51:D3:60:CYS:HB2	1.97	0.65
2:AB:165:ALA:HB2	2:AB:186:VAL:HG12	1.77	0.65
8:AH:9:MET:HE2	8:AH:32:LYS:HG2	1.78	0.65
8:AH:17:GLN:NE2	8:AH:71:VAL:HG23	2.11	0.65
12:AL:43:LYS:NZ	12:AL:44:PRO:HD2	2.12	0.65
14:AN:11:LYS:HB2	14:AN:11:LYS:NZ	2.12	0.65
22:BA:632:A:O2'	22:BA:633:A:H5'	1.96	0.65
22:BA:1028:A:N6	22:BA:1125:G:H2'	2.12	0.65
22:BA:1334:G:H2'	22:BA:1335:C:H5'	1.78	0.65
22:BA:1676:A:C8	62:BA:3756:HOH:O	2.50	0.65
22:BA:1911:U:O4	22:BA:1918:A:H2'	1.96	0.65
25:BD:66:GLY:O	25:BD:69:ALA:HB3	1.97	0.65
26:BE:12:LEU:O	26:BE:12:LEU:HD13	1.95	0.65
27:BF:3:LEU:HD11	27:BF:172:PHE:HD2	1.62	0.65
28:BG:163:TYR:O	28:BG:164:ALA:HB2	1.97	0.65
29:BH:12:LEU:HB2	29:BH:19:VAL:HG11	1.78	0.65
31:BJ:40:HIS:H	31:BJ:40:HIS:CD2	2.15	0.65
46:BY:18:LEU:CD1	46:BY:22:LEU:HD22	2.27	0.65
53:CA:1102:A:H2'	53:CA:1103:C:H6	1.60	0.65
53:CA:1339:A:H2'	53:CA:1340:A:O4'	1.96	0.65
53:CA:1410:A:H2'	53:CA:1411:C:C6	2.31	0.65
5:CE:55:VAL:N	5:CE:56:PRO:HD2	2.11	0.65
9:CI:61:ASP:C	9:CI:62:LEU:HD22	2.22	0.65
10:CJ:48:ARG:CZ	10:CJ:48:ARG:HB2	2.26	0.65
14:CN:86:ALA:O	14:CN:91:GLU:HB2	1.96	0.65
22:DA:70:G:H5'	22:DA:112:U:O2	1.97	0.65
22:DA:234:U:O2'	22:DA:235:U:C5'	2.41	0.65
22:DA:246:C:H4'	22:DA:385:C:O2'	1.96	0.65
22:DA:503:A:C6	22:DA:506:G:C6	2.84	0.65
22:DA:565:C:H4'	22:DA:1253:A:N6	2.11	0.65
22:DA:688:U:H1'	22:DA:786:C:O2'	1.97	0.65
22:DA:1558:C:H1'	22:DA:1560:G:C5	2.31	0.65
22:DA:2468:A:O2'	22:DA:2469:A:C8	2.49	0.65
22:DA:2716:C:H2'	22:DA:2717:C:H6	1.61	0.65
58:DF:122:ASP:HB3	58:DF:126:ASN:ND2	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:109:GLU:HA	29:DH:109:GLU:OE2	1.95	0.65
30:DI:83:ALA:HB2	30:DI:99:LYS:O	1.97	0.65
33:DL:29:LYS:C	33:DL:30:THR:HG23	2.21	0.65
1:AA:94:G:C4'	1:AA:95:C:C5'	2.65	0.65
1:AA:143:A:H5'	1:AA:144:G:H5'	1.79	0.65
1:AA:913:A:H4'	1:AA:914:A:O5'	1.96	0.65
1:AA:961:U:H2'	1:AA:962:C:H6	1.60	0.65
6:AF:10:VAL:HG12	6:AF:11:HIS:N	2.12	0.65
6:AF:52:ASN:O	6:AF:53:LYS:HB3	1.96	0.65
8:AH:83:ARG:O	8:AH:84:ILE:HD13	1.96	0.65
10:AJ:21:ALA:HA	10:AJ:24:GLU:OE2	1.96	0.65
10:AJ:44:THR:HG23	10:AJ:70:HIS:HA	1.79	0.65
12:AL:89:LEU:CB	12:AL:92:VAL:HG21	2.22	0.65
21:AU:52:VAL:CG1	21:AU:53:LYS:H	2.05	0.65
22:BA:528:A:C5'	22:BA:528:A:C8	2.80	0.65
22:BA:655:A:O2'	22:BA:656:G:C8	2.50	0.65
22:BA:855:G:N3	44:BW:23:LYS:CD	2.60	0.65
22:BA:1140:C:P	31:BJ:68:LYS:HZ3	2.20	0.65
22:BA:1438:U:C2'	22:BA:1439:A:H5'	2.27	0.65
22:BA:2103:C:C2'	22:BA:2104:C:H5'	2.25	0.65
22:BA:2134:A:N6	22:BA:2157:G:C5	2.65	0.65
27:BF:129:MET:HG3	27:BF:153:ILE:HD12	1.77	0.65
31:BJ:41:LYS:N	38:BQ:66:ALA:HB1	2.12	0.65
36:BO:2:ASP:O	36:BO:3:LYS:HB3	1.97	0.65
39:BR:39:LEU:C	39:BR:49:ILE:HG23	2.22	0.65
50:B2:22:MET:HE3	50:B2:28:ARG:CG	2.27	0.65
53:CA:219:U:H2'	53:CA:220:G:H8	1.62	0.65
53:CA:404:G:O6	4:CD:1:ALA:HB2	1.97	0.65
53:CA:613:C:H2'	53:CA:614:C:H6	1.62	0.65
53:CA:1026:G:H1	53:CA:1036:A:N6	1.94	0.65
5:CE:155:LYS:HB3	8:CH:70:VAL:HG23	1.78	0.65
9:CI:63:TYR:C	9:CI:64:ILE:HD12	2.22	0.65
17:CQ:12:VAL:HG22	17:CQ:12:VAL:O	1.97	0.65
19:CS:10:ILE:HD12	19:CS:10:ILE:N	2.12	0.65
22:DA:228:C:H5'	22:DA:229:C:H5	1.62	0.65
22:DA:614:A:H4'	22:DA:616:A:N6	2.11	0.65
22:DA:705:A:H2'	22:DA:706:A:H8	1.60	0.65
22:DA:783:A:C2	22:DA:1778:U:H4'	2.27	0.65
22:DA:990:A:O2'	22:DA:991:C:H5''	1.96	0.65
22:DA:1338:G:H2'	22:DA:1339:G:H5'	1.79	0.65
22:DA:2093:G:C2	22:DA:2094:A:N7	2.65	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2093:G:O2'	22:DA:2094:A:OP2	2.15	0.65
22:DA:2135:A:C2'	22:DA:2136:G:O4'	2.45	0.65
22:DA:2646:C:H6	22:DA:2646:C:C5'	2.05	0.65
22:DA:2716:C:H2'	22:DA:2717:C:C6	2.32	0.65
22:DA:2748:A:C1'	28:DG:66:THR:HG22	2.26	0.65
24:DC:72:GLY:O	24:DC:73:ILE:HD13	1.97	0.65
24:DC:80:LEU:HD12	24:DC:80:LEU:N	2.12	0.65
39:DR:27:ILE:CG2	39:DR:28:ALA:H	1.93	0.65
41:DT:12:ARG:HB2	41:DT:33:LYS:HG2	1.79	0.65
43:DV:80:HIS:CD2	43:DV:82:TYR:H	2.15	0.65
1:AA:370:C:C2'	1:AA:371:A:H5'	2.26	0.65
1:AA:672:U:H2'	1:AA:673:A:H8	1.60	0.65
4:AD:16:THR:CG2	4:AD:17:ASP:N	2.60	0.65
8:AH:10:LEU:HD22	8:AH:74:ILE:CG1	2.26	0.65
12:AL:86:VAL:HG12	12:AL:86:VAL:O	1.97	0.65
22:BA:1282:U:H2'	22:BA:1283:G:O4'	1.96	0.65
22:BA:1312:U:H4'	22:BA:1313:U:O5'	1.97	0.65
22:BA:1420:A:O2'	22:BA:1421:G:H5'	1.96	0.65
22:BA:1635:A:H2'	22:BA:1636:U:C6	2.32	0.65
22:BA:1738:G:O2'	22:BA:1739:A:H8	1.80	0.65
22:BA:2503:A:O2'	22:BA:2505:G:OP2	2.14	0.65
22:BA:2808:G:N2	22:BA:2891:U:C6	2.66	0.65
22:BA:2813:A:C2	22:BA:2887:A:N6	2.62	0.65
24:BC:255:LYS:C	24:BC:257:ARG:H	2.04	0.65
24:BC:261:ARG:O	24:BC:261:ARG:HG2	1.96	0.65
31:BJ:56:VAL:CG1	31:BJ:57:LEU:N	2.59	0.65
41:BT:28:ASN:HA	41:BT:91:GLN:CD	2.21	0.65
46:BY:45:GLN:O	46:BY:46:VAL:HB	1.97	0.65
49:B1:34:GLU:HG2	49:B1:49:LYS:HG3	1.78	0.65
53:CA:537:G:H5''	12:CL:109:ARG:NH1	2.12	0.65
53:CA:1129:C:O2'	53:CA:1130:A:C8	2.49	0.65
53:CA:1281:C:C3'	53:CA:1282:C:H5'	2.27	0.65
54:CG:148:LYS:HB2	54:CG:148:LYS:HZ2	1.61	0.65
18:CR:58:ILE:O	18:CR:62:ARG:HG3	1.97	0.65
18:CR:72:ARG:H	18:CR:72:ARG:NE	1.91	0.65
19:CS:49:ALA:HB1	19:CS:56:HIS:HB3	1.77	0.65
19:CS:52:ASN:HD21	19:CS:54:ARG:HG2	1.62	0.65
22:DA:866:A:O2'	22:DA:867:C:H6	1.79	0.65
22:DA:1286:A:C6	22:DA:1289:C:N3	2.65	0.65
22:DA:1708:C:H2'	22:DA:1709:U:H6	1.62	0.65
22:DA:1809:A:C2'	22:DA:1810:A:C8	2.80	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:12:C:H5''	57:DB:15:A:H62	1.62	0.65
24:DC:28:PRO:HG3	24:DC:62:ARG:NH1	2.12	0.65
24:DC:166:ARG:HB2	24:DC:171:VAL:CG2	2.26	0.65
25:DD:48:ILE:CG2	25:DD:84:LEU:HD23	2.25	0.65
39:DR:39:LEU:CA	39:DR:49:ILE:HG21	2.18	0.65
42:DU:17:ASP:HB2	42:DU:38:ILE:HA	1.79	0.65
44:DW:19:ARG:HA	44:DW:34:SER:HA	1.78	0.65
46:DY:53:VAL:O	46:DY:57:LEU:HB2	1.97	0.65
3:AC:76:ILE:HA	3:AC:83:VAL:CG2	2.23	0.64
5:AE:155:LYS:HD2	5:AE:156:ARG:N	2.12	0.64
13:AM:1:ALA:HB3	13:AM:8:ILE:HG23	1.77	0.64
16:AP:48:GLU:CG	16:AP:49:GLY:H	2.11	0.64
22:BA:372:G:O4'	45:BX:60:LYS:HE3	1.97	0.64
22:BA:588:U:H2'	22:BA:589:U:H6	1.60	0.64
22:BA:1784:A:H4'	22:BA:1785:A:C5'	2.26	0.64
24:BC:40:GLY:C	24:BC:53:ILE:HG22	2.22	0.64
27:BF:153:ILE:HD12	27:BF:153:ILE:O	1.96	0.64
28:BG:33:THR:N	28:BG:34:ARG:HH11	1.95	0.64
41:BT:29:THR:HA	41:BT:86:THR:H	1.61	0.64
44:BW:37:VAL:HG13	44:BW:55:ASP:C	2.23	0.64
48:B0:42:ILE:HD12	48:B0:48:TYR:HB2	1.78	0.64
53:CA:209:U:O2	53:CA:209:U:H2'	1.96	0.64
53:CA:381:C:O2	53:CA:381:C:H2'	1.96	0.64
53:CA:734:G:H2'	53:CA:735:C:C6	2.32	0.64
4:CD:60:VAL:HG22	4:CD:194:ILE:HG21	1.77	0.64
54:CG:10:LYS:HE3	54:CG:10:LYS:N	2.11	0.64
54:CG:116:ALA:C	54:CG:120:ALA:HB3	2.22	0.64
10:CJ:8:ILE:O	10:CJ:8:ILE:HG13	1.96	0.64
21:CU:28:LEU:C	21:CU:28:LEU:HD23	2.21	0.64
22:DA:508:A:H3'	22:DA:509:C:H5'	1.79	0.64
22:DA:1393:A:N6	41:DT:19:LYS:HB2	2.12	0.64
22:DA:1901:A:OP2	24:DC:252:LYS:HE3	1.96	0.64
22:DA:2142:A:C2'	22:DA:2143:C:H4'	2.26	0.64
22:DA:2195:U:H2'	22:DA:2196:C:H6	1.63	0.64
22:DA:2638:G:O2'	22:DA:2639:A:C8	2.51	0.64
24:DC:94:LEU:HA	24:DC:100:ARG:HG2	1.80	0.64
25:DD:172:VAL:O	25:DD:172:VAL:HG12	1.96	0.64
30:DI:102:ARG:HH11	30:DI:105:LEU:HD13	1.60	0.64
31:DJ:4:PHE:O	31:DJ:44:TYR:CZ	2.50	0.64
31:DJ:17:VAL:HG23	31:DJ:137:PRO:CB	2.25	0.64
38:DQ:4:LYS:HE3	38:DQ:7:VAL:CG1	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:27:ILE:HG13	39:DR:33:VAL:HG11	1.79	0.64
1:AA:215:C:O2'	1:AA:216:U:H5'	1.97	0.64
1:AA:275:G:H8	1:AA:275:G:H5''	1.61	0.64
1:AA:275:G:H2'	1:AA:276:G:H8	1.60	0.64
1:AA:723:U:C5'	21:AU:48:LYS:HG2	2.26	0.64
2:AB:185:ILE:O	2:AB:185:ILE:HG13	1.96	0.64
3:AC:25:THR:HG23	14:AN:75:LYS:CD	2.27	0.64
4:AD:2:ARG:NH2	4:AD:114:ARG:HD3	2.12	0.64
5:AE:29:ILE:HD12	5:AE:30:PHE:N	2.12	0.64
7:AG:105:GLU:HG2	7:AG:105:GLU:O	1.97	0.64
9:AI:9:GLY:CA	9:AI:80:HIS:HD2	2.09	0.64
11:AK:108:ASN:CG	21:AU:6:ARG:HG2	2.21	0.64
16:AP:20:VAL:HG21	16:AP:32:PHE:CG	2.32	0.64
22:BA:544:C:H3'	22:BA:545:U:O2	1.97	0.64
22:BA:981:A:H5''	22:BA:982:C:OP2	1.97	0.64
22:BA:1256:G:O2'	26:BE:77:ILE:HD11	1.97	0.64
22:BA:2134:A:C6	22:BA:2135:A:C6	2.85	0.64
22:BA:2703:C:H2'	22:BA:2704:C:C6	2.27	0.64
27:BF:174:PHE:CD1	27:BF:176:PHE:CE1	2.86	0.64
29:BH:12:LEU:HD23	29:BH:12:LEU:N	2.11	0.64
40:BS:84:ARG:HB2	40:BS:96:ILE:CD1	2.26	0.64
53:CA:642:A:HO2'	53:CA:643:C:H6	1.39	0.64
53:CA:1253:G:N1	53:CA:1285:A:N6	2.46	0.64
3:CC:41:TYR:CE1	3:CC:89:VAL:CG1	2.80	0.64
6:CF:38:ARG:HG3	6:CF:63:ASN:HB2	1.80	0.64
22:DA:104:A:O2'	22:DA:105:C:O4'	2.14	0.64
22:DA:377:G:C6	22:DA:378:C:C4	2.86	0.64
22:DA:858:G:H2'	22:DA:2268:A:N3	2.12	0.64
22:DA:1695:G:H2'	22:DA:1696:G:O4'	1.97	0.64
22:DA:2025:C:H2'	22:DA:2026:U:C6	2.32	0.64
22:DA:2297:A:N3	22:DA:2298:A:C8	2.66	0.64
22:DA:2653:U:C4	22:DA:2654:A:C6	2.85	0.64
22:DA:2738:A:H2	22:DA:2766:A:H61	1.43	0.64
26:DE:79:ARG:CG	26:DE:80:SER:H	2.10	0.64
34:DM:4:PRO:HD3	34:DM:68:PHE:HE2	1.61	0.64
47:DZ:40:THR:H	47:DZ:43:ILE:HD11	1.62	0.64
1:AA:138:G:C2'	1:AA:139:A:H5'	2.27	0.64
1:AA:223:A:H2'	1:AA:224:U:C6	2.32	0.64
1:AA:923:A:O2'	1:AA:924:C:H5'	1.97	0.64
4:AD:123:MET:HA	4:AD:128:VAL:HA	1.78	0.64
6:AF:9:MET:HE2	6:AF:59:TYR:CE2	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:93:LYS:HE3	8:AH:116:ARG:HH12	1.63	0.64
10:AJ:53:ILE:CG2	10:AJ:61:ALA:HB1	2.25	0.64
12:AL:33:CYS:H	12:AL:54:VAL:HG13	1.62	0.64
12:AL:82:ARG:O	12:AL:82:ARG:HG3	1.98	0.64
20:AT:79:THR:O	20:AT:82:ILE:HG13	1.97	0.64
22:BA:540:C:C2'	22:BA:541:A:H5'	2.28	0.64
22:BA:806:C:H2'	22:BA:807:U:H6	1.62	0.64
25:BD:151:THR:CG2	25:BD:152:PRO:N	2.59	0.64
29:BH:67:ALA:C	29:BH:69:ALA:H	2.05	0.64
31:BJ:40:HIS:C	31:BJ:41:LYS:HG2	2.22	0.64
33:BL:91:ASP:HB3	33:BL:94:THR:HB	1.77	0.64
46:BY:56:LEU:O	46:BY:57:LEU:CB	2.43	0.64
47:BZ:35:VAL:HG21	47:BZ:37:ARG:CZ	2.27	0.64
53:CA:1084:G:C5	53:CA:1085:U:C4	2.85	0.64
53:CA:1298:U:H4'	53:CA:1299:A:O5'	1.97	0.64
4:CD:94:GLU:OE1	4:CD:103:ARG:HG3	1.98	0.64
22:DA:9:G:C6	22:DA:2629:U:C5	2.86	0.64
22:DA:250:G:H2'	22:DA:251:A:C8	2.31	0.64
22:DA:396:G:O2'	22:DA:397:U:H5'	1.96	0.64
22:DA:1347:A:O2'	22:DA:1348:C:C5'	2.45	0.64
22:DA:1929:G:C4'	22:DA:1930:G:OP1	2.46	0.64
22:DA:2333:A:C2	22:DA:2335:A:N6	2.65	0.64
22:DA:2771:C:H2'	22:DA:2772:C:C6	2.31	0.64
22:DA:2773:C:H2'	22:DA:2774:C:H6	1.63	0.64
22:DA:2898:U:H2'	22:DA:2899:A:C8	2.33	0.64
28:DG:18:ILE:HD12	28:DG:42:VAL:CG1	2.22	0.64
32:DK:11:ALA:HB2	32:DK:64:ARG:NH1	2.12	0.64
32:DK:17:ARG:CG	32:DK:18:ARG:H	2.09	0.64
42:DU:3:LYS:HE2	42:DU:84:PHE:HE1	1.63	0.64
42:DU:85:ARG:HA	42:DU:85:ARG:HE	1.61	0.64
1:AA:246:A:C4	1:AA:282:A:N6	2.65	0.64
1:AA:495:A:O2'	1:AA:496:A:H5''	1.97	0.64
1:AA:1067:A:H1'	1:AA:1068:G:C8	2.33	0.64
1:AA:1084:G:C5	1:AA:1085:U:C4	2.86	0.64
1:AA:1170:A:H2'	1:AA:1171:A:O4'	1.98	0.64
1:AA:1234:C:O2'	1:AA:1235:U:H5'	1.98	0.64
1:AA:1363:A:C8	1:AA:1365:G:C5	2.86	0.64
2:AB:100:LEU:HD12	2:AB:178:LEU:HD23	1.79	0.64
3:AC:39:ARG:NE	3:AC:54:ILE:HD11	2.13	0.64
10:AJ:6:ILE:HD11	10:AJ:79:PRO:HB3	1.78	0.64
11:AK:22:ILE:CD1	11:AK:95:THR:HG21	2.27	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:92:ILE:HG21	14:AN:95:LEU:HD22	1.77	0.64
15:AO:24:THR:CG2	15:AO:69:LEU:HD12	2.28	0.64
21:AU:52:VAL:HG13	21:AU:53:LYS:N	2.02	0.64
22:BA:900:A:O2'	22:BA:901:C:C5'	2.45	0.64
22:BA:1060:U:H5''	22:BA:1061:U:OP1	1.98	0.64
22:BA:2309:A:O2'	22:BA:2310:C:H5'	1.98	0.64
22:BA:2365:G:H2'	22:BA:2366:A:C8	2.33	0.64
22:BA:2842:G:C2'	22:BA:2843:G:H5'	2.28	0.64
24:BC:123:ILE:O	24:BC:123:ILE:HG12	1.96	0.64
27:BF:40:GLY:CA	27:BF:84:ILE:CD1	2.70	0.64
31:BJ:44:TYR:CD1	38:BQ:59:LEU:HD11	2.31	0.64
31:BJ:64:VAL:O	31:BJ:65:THR:HB	1.97	0.64
42:BU:53:GLN:N	42:BU:54:PRO:CD	2.60	0.64
44:BW:31:LEU:N	44:BW:31:LEU:HD23	2.12	0.64
52:B4:1:MET:SD	52:B4:36:ARG:HB2	2.38	0.64
53:CA:909:A:H2	53:CA:1413:A:N3	1.96	0.64
53:CA:1285:A:C4'	53:CA:1286:U:OP1	2.45	0.64
53:CA:1449:C:O2'	53:CA:1450:U:C5'	2.46	0.64
54:CG:2:ARG:HG2	54:CG:3:ARG:N	2.11	0.64
54:CG:119:LEU:HD23	54:CG:119:LEU:C	2.21	0.64
8:CH:102:VAL:HG23	8:CH:125:ILE:HD12	1.78	0.64
22:DA:240:C:H3'	22:DA:241:A:H5''	1.77	0.64
22:DA:329:G:OP1	22:DA:329:G:H3'	1.98	0.64
22:DA:687:C:H2'	22:DA:688:U:C6	2.32	0.64
22:DA:832:U:OP1	33:DL:39:LYS:N	2.30	0.64
22:DA:1723:G:H2'	22:DA:1724:G:H8	1.62	0.64
22:DA:1819:A:H1'	22:DA:1821:A:C6	2.32	0.64
22:DA:2618:G:H21	25:DD:155:VAL:HG21	1.63	0.64
22:DA:2663:G:H2'	22:DA:2664:G:H8	1.62	0.64
24:DC:171:VAL:N	24:DC:185:ALA:HB2	2.12	0.64
58:DF:42:ALA:HB2	58:DF:48:LEU:HD11	1.79	0.64
58:DF:46:LYS:O	58:DF:46:LYS:HD3	1.96	0.64
28:DG:84:LYS:O	28:DG:85:LYS:HB3	1.95	0.64
31:DJ:110:PRO:CG	31:DJ:111:LYS:HG2	2.27	0.64
33:DL:96:LYS:HD3	33:DL:103:ILE:HA	1.79	0.64
33:DL:123:ARG:HA	33:DL:143:GLU:HB3	1.79	0.64
35:DN:73:ASN:O	35:DN:76:VAL:HG22	1.98	0.64
1:AA:92:U:C2'	1:AA:93:U:C6	2.81	0.64
1:AA:179:A:H2'	1:AA:180:U:H5'	1.78	0.64
1:AA:652:U:O4	1:AA:752:G:C2'	2.46	0.64
1:AA:714:G:O2'	1:AA:715:A:H5'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:21:TRP:CB	3:AC:58:ARG:HG2	2.28	0.64
4:AD:28:ASP:OD1	4:AD:33:ILE:HG12	1.98	0.64
10:AJ:6:ILE:HD11	10:AJ:79:PRO:CA	2.27	0.64
11:AK:125:LYS:C	21:AU:33:ARG:NH2	2.56	0.64
22:BA:199:A:O2'	22:BA:200:U:H5'	1.97	0.64
22:BA:1404:C:O2'	22:BA:1405:U:H5'	1.97	0.64
22:BA:1414:C:C4	22:BA:1415:U:C5	2.84	0.64
22:BA:1585:C:H2'	22:BA:1586:A:H5'	1.78	0.64
25:BD:110:THR:HG22	25:BD:111:GLY:N	2.12	0.64
28:BG:25:ILE:HD11	28:BG:71:LEU:HD12	1.80	0.64
29:BH:31:VAL:O	29:BH:32:PRO:C	2.41	0.64
32:BK:58:LEU:HD23	32:BK:58:LEU:N	2.12	0.64
37:BP:92:ARG:O	37:BP:92:ARG:CG	2.46	0.64
38:BQ:86:SER:O	39:BR:51:VAL:HA	1.97	0.64
53:CA:174:A:H2'	53:CA:175:C:H6	1.62	0.64
53:CA:1318:A:O2'	19:CS:36:ARG:HD3	1.97	0.64
5:CE:103:GLY:O	5:CE:104:ILE:CG2	2.41	0.64
6:CF:72:ASP:O	6:CF:75:GLU:HB2	1.97	0.64
9:CI:29:ILE:HA	9:CI:64:ILE:O	1.97	0.64
9:CI:59:LYS:HE3	9:CI:60:LEU:HG	1.79	0.64
20:CT:42:ASP:HB3	20:CT:45:ALA:HB3	1.78	0.64
22:DA:13:A:O2'	22:DA:15:G:N7	2.31	0.64
22:DA:921:C:C2'	22:DA:922:C:C5'	2.74	0.64
22:DA:1055:G:C3'	22:DA:1056:G:H5'	2.26	0.64
22:DA:1062:G:H22	22:DA:1077:A:H2	1.43	0.64
22:DA:1639:C:H2'	22:DA:1640:A:C5'	2.16	0.64
22:DA:1906:G:C8	22:DA:1929:G:H2'	2.32	0.64
22:DA:1915:U:O2'	22:DA:1916:A:C5'	2.45	0.64
22:DA:2060:A:H62	26:DE:69:ARG:HH12	1.43	0.64
24:DC:35:LYS:NZ	24:DC:35:LYS:HB3	2.12	0.64
26:DE:149:ILE:HG23	26:DE:188:MET:N	2.12	0.64
29:DH:33:GLN:O	29:DH:35:LYS:HG2	1.97	0.64
38:DQ:60:TRP:CH2	38:DQ:93:ILE:HB	2.32	0.64
43:DV:80:HIS:HD2	43:DV:82:TYR:H	1.45	0.64
1:AA:66:A:H2'	1:AA:66:A:N3	2.11	0.64
1:AA:819:A:H4'	1:AA:820:U:OP2	1.96	0.64
4:AD:55:ARG:NH1	4:AD:58:GLN:HG2	2.11	0.64
9:AI:40:ARG:O	9:AI:44:ARG:HD3	1.98	0.64
12:AL:86:VAL:CG1	12:AL:89:LEU:HD23	2.28	0.64
22:BA:509:C:H6	22:BA:509:C:C5'	2.10	0.64
22:BA:675:A:OP1	26:BE:58:LYS:HE2	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1079:C:N4	22:BA:1088:A:C2	2.62	0.64
22:BA:1178:C:H2'	22:BA:1179:G:N7	2.11	0.64
22:BA:2364:C:C2'	22:BA:2365:G:H5'	2.28	0.64
22:BA:2393:U:H5'	33:BL:60:ARG:O	1.97	0.64
22:BA:2558:C:O2'	22:BA:2559:C:H5'	1.97	0.64
22:BA:2567:G:H2'	22:BA:2568:U:C6	2.32	0.64
29:BH:96:THR:O	29:BH:96:THR:HG23	1.98	0.64
31:BJ:102:GLU:HG3	31:BJ:124:VAL:HG11	1.80	0.64
35:BN:70:THR:HG21	35:BN:75:ILE:HD11	1.79	0.64
40:BS:24:ILE:CD1	40:BS:32:ALA:HA	2.28	0.64
42:BU:43:LYS:O	42:BU:57:ILE:HA	1.98	0.64
44:BW:72:GLY:N	44:BW:73:PRO:HD2	2.13	0.64
53:CA:372:C:O2'	53:CA:373:A:P	2.56	0.64
53:CA:998:C:H2'	53:CA:999:C:H6	1.62	0.64
53:CA:1189:U:O2'	3:CC:175:HIS:HD2	1.80	0.64
53:CA:1280:A:H5''	10:CJ:43:PRO:CG	2.28	0.64
53:CA:1372:U:C5'	9:CI:71:ILE:HD11	2.26	0.64
5:CE:82:HIS:HB2	5:CE:83:PRO:HD2	1.79	0.64
12:CL:89:LEU:HB3	12:CL:92:VAL:CG2	2.26	0.64
15:CO:69:LEU:CD1	15:CO:77:TYR:HA	2.28	0.64
56:CP:48:GLU:CD	56:CP:51:ARG:HE	2.04	0.64
22:DA:36:G:N1	22:DA:445:C:N4	2.46	0.64
22:DA:575:A:HO2'	22:DA:576:U:H6	1.44	0.64
22:DA:861:A:O2'	22:DA:862:G:H5'	1.97	0.64
22:DA:1062:G:OP1	22:DA:1070:A:H4'	1.98	0.64
22:DA:1827:U:H4'	22:DA:1970:A:O2'	1.97	0.64
22:DA:2283:C:H6	22:DA:2283:C:H5''	1.63	0.64
22:DA:2734:A:C2'	22:DA:2735:G:H5'	2.28	0.64
24:DC:77:VAL:CG2	24:DC:111:ALA:HA	2.27	0.64
58:DF:102:LEU:C	58:DF:103:ILE:HD12	2.22	0.64
29:DH:37:VAL:HG23	29:DH:38:PRO:HD2	1.80	0.64
35:DN:71:ARG:HH21	35:DN:71:ARG:CB	2.08	0.64
37:DP:20:ARG:HD2	37:DP:21:PRO:HD2	1.79	0.64
37:DP:28:LYS:CG	37:DP:39:LEU:HD23	2.28	0.64
39:DR:39:LEU:HB2	39:DR:49:ILE:CD1	2.27	0.64
1:AA:243:A:C4'	1:AA:244:U:H5''	2.21	0.64
4:AD:43:ARG:C	4:AD:45:PRO:HD3	2.23	0.64
4:AD:167:PRO:HB2	4:AD:170:LEU:CD1	2.26	0.64
11:AK:22:ILE:HD13	11:AK:95:THR:CG2	2.27	0.64
11:AK:114:PRO:O	11:AK:115:ILE:HD13	1.98	0.64
22:BA:78:U:O2'	22:BA:79:C:H5'	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:481:G:C4	22:BA:507:A:C2	2.85	0.64
22:BA:856:G:H21	44:BW:19:ARG:HH22	1.46	0.64
22:BA:1432:G:O2'	22:BA:1433:A:H5'	1.97	0.64
22:BA:1459:G:O2'	22:BA:1460:U:H3'	1.97	0.64
25:BD:51:THR:HB	25:BD:78:GLY:O	1.98	0.64
27:BF:30:VAL:O	27:BF:30:VAL:HG13	1.97	0.64
35:BN:103:ARG:HB2	35:BN:110:MET:HE3	1.78	0.64
42:BU:12:VAL:HA	42:BU:69:VAL:HG12	1.79	0.64
42:BU:41:VAL:O	42:BU:59:GLU:HA	1.96	0.64
44:BW:28:GLU:CG	44:BW:29:SER:H	2.10	0.64
47:BZ:23:LEU:HD21	47:BZ:53:MET:CE	2.28	0.64
53:CA:120:A:H3'	53:CA:121:U:C5'	2.27	0.64
53:CA:194:C:O2'	53:CA:195:A:H5'	1.98	0.64
53:CA:919:A:O2'	53:CA:920:U:H5'	1.97	0.64
53:CA:1134:G:C5	53:CA:1135:U:H1'	2.33	0.64
12:CL:2:THR:HB	12:CL:5:GLN:HB2	1.79	0.64
17:CQ:59:GLU:O	17:CQ:75:VAL:HG22	1.98	0.64
22:DA:170:U:H2'	22:DA:171:U:C6	2.30	0.64
22:DA:603:A:H4'	22:DA:604:G:O5'	1.96	0.64
22:DA:1313:U:O2	22:DA:1313:U:C2'	2.33	0.64
22:DA:1574:C:O5'	22:DA:1574:C:H6	1.80	0.64
22:DA:2261:C:C2	22:DA:2280:G:N2	2.66	0.64
22:DA:2511:U:O2'	22:DA:2512:C:H5'	1.97	0.64
24:DC:166:ARG:CB	24:DC:171:VAL:HG22	2.27	0.64
28:DG:85:LYS:O	28:DG:86:LEU:HG	1.98	0.64
28:DG:132:LEU:HD12	28:DG:132:LEU:N	2.13	0.64
46:DY:1:MET:HE2	46:DY:1:MET:H3	1.60	0.64
1:AA:67:C:H4'	1:AA:172:A:O4'	1.98	0.64
1:AA:523:A:H61	12:AL:88:ASP:CB	2.11	0.64
1:AA:666:G:H5'	1:AA:726:C:H1'	1.78	0.64
1:AA:1065:U:H5''	1:AA:1190:G:H21	1.59	0.64
4:AD:34:GLU:O	4:AD:37:PRO:HD3	1.98	0.64
8:AH:77:VAL:HG23	8:AH:126:CYS:HA	1.78	0.64
13:AM:92:ARG:CZ	13:AM:92:ARG:HB3	2.27	0.64
13:AM:106:ARG:HH21	13:AM:112:ARG:HB3	1.62	0.64
22:BA:1023:U:H5'	22:BA:1023:U:C6	2.26	0.64
22:BA:1025:G:H4'	22:BA:1026:G:OP2	1.97	0.64
22:BA:1224:U:H4'	39:BR:88:GLY:O	1.97	0.64
22:BA:1347:A:H2'	22:BA:1348:C:H5'	1.79	0.64
22:BA:1607:C:N4	22:BA:1622:G:C5	2.66	0.64
24:BC:246:PRO:CG	24:BC:247:TRP:CZ3	2.68	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:127:GLU:CD	26:BE:127:GLU:N	2.54	0.64
28:BG:83:THR:C	28:BG:84:LYS:CE	2.71	0.64
29:BH:8:LYS:O	29:BH:9:VAL:CB	2.44	0.64
34:BM:41:LEU:O	34:BM:93:VAL:HG23	1.97	0.64
40:BS:13:SER:O	40:BS:14:ALA:CB	2.45	0.64
44:BW:8:SER:O	44:BW:9:THR:HB	1.98	0.64
44:BW:8:SER:C	44:BW:9:THR:HG22	2.23	0.64
45:BX:52:ALA:O	45:BX:53:LYS:CB	2.46	0.64
49:B1:32:LYS:HG2	49:B1:52:LYS:OXT	1.97	0.64
53:CA:409:U:H2'	53:CA:410:G:O4'	1.96	0.64
53:CA:671:G:N1	53:CA:672:U:C2	2.66	0.64
53:CA:764:C:H2'	53:CA:765:G:C5'	2.23	0.64
53:CA:1350:A:H2	54:CG:33:GLY:HA3	1.63	0.64
53:CA:1359:C:H5''	62:CA:1776:HOH:O	1.98	0.64
53:CA:1365:G:C2	53:CA:1366:C:C2	2.86	0.64
53:CA:1451:U:C2	53:CA:1453:G:O6	2.51	0.64
3:CC:134:LYS:HD3	3:CC:138:GLN:OE1	1.98	0.64
4:CD:187:ARG:C	4:CD:189:ASP:H	2.06	0.64
9:CI:125:GLN:H	9:CI:125:GLN:HE21	1.46	0.64
20:CT:24:ARG:HD3	20:CT:28:ARG:HH21	1.63	0.64
22:DA:391:A:H2'	22:DA:392:U:H6	1.63	0.64
22:DA:424:G:O2'	22:DA:425:G:H5'	1.97	0.64
22:DA:563:A:C4	22:DA:2018:G:C2	2.86	0.64
22:DA:564:C:C2'	22:DA:565:C:H5'	2.28	0.64
22:DA:574:A:C8	22:DA:2055:C:H5''	2.33	0.64
22:DA:612:G:N2	22:DA:614:A:O2'	2.30	0.64
22:DA:1116:G:C6	22:DA:1117:C:N4	2.66	0.64
22:DA:1361:G:C2'	22:DA:1362:C:H5'	2.28	0.64
22:DA:1362:C:N3	22:DA:1363:C:C5	2.66	0.64
22:DA:1997:C:O2'	22:DA:1998:A:H5'	1.97	0.64
22:DA:2356:U:H4'	44:DW:16:GLU:HG3	1.79	0.64
22:DA:2707:U:H2'	22:DA:2708:G:C8	2.32	0.64
22:DA:2746:U:H2'	22:DA:2747:G:H5'	1.79	0.64
24:DC:166:ARG:HB2	24:DC:171:VAL:HG22	1.79	0.64
47:DZ:23:LEU:HD12	47:DZ:28:LEU:HD21	1.78	0.64
1:AA:982:U:H4'	1:AA:983:A:C5'	2.28	0.64
2:AB:153:MET:CE	2:AB:157:PRO:HG3	2.27	0.64
4:AD:194:ILE:O	4:AD:194:ILE:HG13	1.98	0.64
9:AI:6:TYR:HE2	9:AI:17:ARG:HB2	1.63	0.64
11:AK:96:ILE:HG13	11:AK:97:ARG:N	2.11	0.64
20:AT:54:GLN:N	20:AT:55:PRO:HD2	2.11	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:544:C:N3	22:BA:548:G:OP1	2.31	0.64
22:BA:1060:U:C5'	22:BA:1061:U:H5'	2.27	0.64
22:BA:1576:U:C2'	22:BA:1577:C:H5'	2.27	0.64
22:BA:1682:G:C8	22:BA:1757:A:N3	2.65	0.64
22:BA:1847:A:N3	22:BA:1847:A:H2'	2.13	0.64
22:BA:1871:A:H8	22:BA:1872:A:C6	2.16	0.64
22:BA:2311:A:O3'	22:BA:2312:U:C6	2.51	0.64
22:BA:2388:A:H5'	22:BA:2389:G:OP2	1.98	0.64
22:BA:2393:U:O2'	22:BA:2394:C:H5'	1.98	0.64
22:BA:2889:C:O2'	22:BA:2890:G:H5'	1.98	0.64
31:BJ:42:ALA:O	31:BJ:45:THR:HG22	1.98	0.64
32:BK:61:VAL:HG22	32:BK:87:LEU:HD11	1.80	0.64
37:BP:4:ILE:O	37:BP:6:GLN:N	2.31	0.64
40:BS:73:LYS:CE	40:BS:74:ILE:H	2.06	0.64
40:BS:84:ARG:CB	40:BS:96:ILE:HD11	2.27	0.64
41:BT:2:ILE:N	41:BT:2:ILE:HD13	2.13	0.64
53:CA:495:A:H4'	53:CA:496:A:O5'	1.97	0.64
53:CA:769:G:O2'	53:CA:770:C:H5'	1.98	0.64
53:CA:1074:G:H4'	2:CB:102:ASN:HB2	1.80	0.64
53:CA:1296:C:O2'	53:CA:1302:C:C4	2.51	0.64
4:CD:2:ARG:NE	4:CD:114:ARG:CD	2.61	0.64
5:CE:39:GLY:HA2	5:CE:45:VAL:HA	1.79	0.64
12:CL:52:CYS:HB3	12:CL:66:ILE:HD11	1.80	0.64
22:DA:286:U:H2'	22:DA:287:G:H8	1.61	0.64
22:DA:1267:U:O2'	22:DA:1268:A:H8	1.74	0.64
22:DA:1274:A:O2'	22:DA:1275:A:H5''	1.97	0.64
22:DA:1587:G:N2	22:DA:1588:G:H1'	2.12	0.64
22:DA:2376:A:C1'	36:DO:99:TYR:CE1	2.81	0.64
57:DB:30:C:H2'	57:DB:31:C:H5'	1.79	0.64
58:DF:64:PRO:HA	58:DF:88:VAL:CG2	2.27	0.64
31:DJ:58:ASN:CG	31:DJ:127:GLY:HA2	2.23	0.64
32:DK:21:CYS:SG	32:DK:39:ILE:CG2	2.86	0.64
33:DL:110:VAL:HG11	33:DL:127:VAL:HG23	1.79	0.64
36:DO:58:ILE:O	36:DO:62:LEU:HB2	1.98	0.64
41:DT:18:GLU:HA	41:DT:22:THR:HG21	1.80	0.64
1:AA:74:A:C6	1:AA:97:G:O6	2.51	0.64
1:AA:507:C:H3'	1:AA:508:U:H5''	1.79	0.64
1:AA:649:A:H2'	1:AA:650:G:O4'	1.98	0.64
1:AA:1003:G:H22	1:AA:1005:A:H5'	1.62	0.64
1:AA:1287:A:H2'	1:AA:1288:A:C8	2.33	0.64
4:AD:29:THR:HG22	4:AD:30:LYS:HD3	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:54:LEU:HD23	4:AD:54:LEU:C	2.23	0.64
21:AU:40:PRO:HA	21:AU:43:GLU:HB2	1.79	0.64
22:BA:483:A:O2'	42:BU:56:GLY:HA2	1.98	0.64
22:BA:636:G:C6	33:BL:111:ILE:HD11	2.33	0.64
22:BA:1474:U:H2'	22:BA:1475:G:H5'	1.80	0.64
26:BE:111:GLU:HG2	26:BE:114:ARG:HH12	1.61	0.64
37:BP:58:PHE:CE2	37:BP:75:THR:HG22	2.33	0.64
39:BR:54:VAL:O	39:BR:55:ASP:C	2.40	0.64
40:BS:72:THR:HG21	40:BS:108:SER:OG	1.97	0.64
42:BU:82:VAL:O	42:BU:94:PHE:O	2.16	0.64
53:CA:249:U:C2	53:CA:276:G:N1	2.66	0.64
53:CA:461:A:N3	53:CA:461:A:H2'	2.12	0.64
53:CA:723:U:O4'	21:CU:48:LYS:HD2	1.97	0.64
53:CA:1322:C:H2'	53:CA:1322:C:O2	1.97	0.64
2:CB:19:THR:HG22	2:CB:37:VAL:CB	2.27	0.64
3:CC:18:ASN:HA	3:CC:55:VAL:HG12	1.80	0.64
3:CC:59:PRO:HG2	3:CC:62:SER:HB3	1.78	0.64
10:CJ:57:VAL:CG2	10:CJ:58:ASN:H	2.00	0.64
22:DA:533:G:H21	38:DQ:44:TYR:HD1	1.43	0.64
22:DA:858:G:C4	22:DA:2268:A:C2	2.85	0.64
22:DA:2197:U:C5	22:DA:2224:G:C5	2.86	0.64
22:DA:2223:G:H2'	22:DA:2224:G:H5'	1.80	0.64
24:DC:130:PRO:HG2	24:DC:133:ASN:ND2	2.12	0.64
32:DK:19:VAL:HG12	32:DK:41:ILE:HG12	1.80	0.64
34:DM:71:LYS:HD3	34:DM:95:LEU:HD13	1.80	0.64
37:DP:103:THR:O	37:DP:106:ALA:HB3	1.98	0.64
38:DQ:6:GLY:C	38:DQ:8:ILE:H	2.04	0.64
40:DS:66:ILE:H	40:DS:66:ILE:CD1	2.09	0.64
43:DV:61:LEU:HD23	43:DV:61:LEU:N	2.12	0.64
1:AA:408:A:P	4:AD:109:THR:HG21	2.39	0.63
1:AA:1319:A:H2'	1:AA:1323:G:N7	2.12	0.63
2:AB:221:ARG:CZ	2:AB:221:ARG:HB3	2.28	0.63
3:AC:41:TYR:OH	3:AC:89:VAL:HG21	1.98	0.63
9:AI:12:LYS:O	9:AI:13:SER:HB3	1.98	0.63
10:AJ:57:VAL:CG2	10:AJ:58:ASN:H	2.12	0.63
14:AN:51:PRO:O	14:AN:52:ARG:CB	2.46	0.63
17:AQ:11:VAL:HG12	17:AQ:12:VAL:N	2.13	0.63
22:BA:221:A:H4'	22:BA:222:A:O5'	1.98	0.63
22:BA:455:C:N3	22:BA:473:G:H5'	2.12	0.63
22:BA:478:A:C6	22:BA:480:A:C6	2.86	0.63
22:BA:923:G:N3	44:BW:23:LYS:CE	2.58	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:923:G:H5'	44:BW:25:PHE:HZ	1.62	0.63
24:BC:80:LEU:CD1	24:BC:109:LEU:HG	2.28	0.63
25:BD:104:VAL:HA	25:BD:106:LYS:HZ3	1.64	0.63
26:BE:150:THR:HG21	26:BE:153:LEU:HA	1.80	0.63
27:BF:68:LYS:HD2	27:BF:68:LYS:N	2.13	0.63
29:BH:8:LYS:O	29:BH:13:GLY:CA	2.46	0.63
33:BL:65:GLY:O	33:BL:66:PHE:HB3	1.97	0.63
36:BO:58:ILE:HD11	36:BO:81:ARG:NH2	2.13	0.63
37:BP:112:ARG:O	37:BP:113:LEU:HD23	1.98	0.63
43:BV:93:ARG:O	43:BV:94:ALA:HB2	1.96	0.63
49:B1:8:ILE:CG2	49:B1:9:LYS:N	2.60	0.63
49:B1:9:LYS:N	49:B1:9:LYS:HD3	2.13	0.63
53:CA:373:A:C2	53:CA:482:A:C6	2.85	0.63
53:CA:775:G:H2'	53:CA:776:G:H5'	1.79	0.63
53:CA:794:A:H2'	53:CA:795:C:H6	1.62	0.63
53:CA:960:U:O2'	53:CA:1223:C:C5'	2.46	0.63
53:CA:1478:U:H2'	53:CA:1479:C:C6	2.33	0.63
4:CD:2:ARG:NH2	4:CD:114:ARG:CD	2.51	0.63
5:CE:80:LEU:HD21	5:CE:143:LEU:HD21	1.80	0.63
6:CF:42:TRP:HB2	6:CF:59:TYR:CB	2.28	0.63
9:CI:78:ILE:O	9:CI:82:ILE:HG13	1.99	0.63
55:CM:2:ARG:HA	55:CM:7:ASN:O	1.97	0.63
14:CN:63:CYS:SG	14:CN:82:LYS:HG3	2.38	0.63
22:DA:103:A:H2'	22:DA:104:A:C8	2.33	0.63
22:DA:103:A:O2'	22:DA:104:A:H5'	1.98	0.63
22:DA:111:A:C2	22:DA:112:U:C2	2.86	0.63
22:DA:603:A:H4'	22:DA:604:G:C4'	2.28	0.63
22:DA:976:G:HO2'	22:DA:977:G:H8	1.46	0.63
22:DA:1936:A:H2'	22:DA:1945:G:O6	1.98	0.63
22:DA:1957:C:H5'	22:DA:1984:G:O2'	1.97	0.63
22:DA:2104:C:O2	22:DA:2105:U:H5	1.80	0.63
22:DA:2135:A:C3'	22:DA:2136:G:C5'	2.65	0.63
22:DA:2142:A:C3'	22:DA:2143:C:H4'	2.28	0.63
22:DA:2876:G:H4'	37:DP:2:ASN:HD21	1.62	0.63
24:DC:94:LEU:CD1	24:DC:100:ARG:HD3	2.28	0.63
58:DF:103:ILE:HG22	58:DF:103:ILE:O	1.98	0.63
32:DK:27:GLY:HA3	32:DK:30:ARG:HD3	1.78	0.63
35:DN:33:ILE:CD1	35:DN:118:ARG:HH21	2.12	0.63
37:DP:91:VAL:HG11	37:DP:96:LEU:CD1	2.25	0.63
38:DQ:90:ASP:O	38:DQ:94:LEU:HB2	1.98	0.63
1:AA:282:A:C2	1:AA:283:U:H1'	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:352:C:H6	1:AA:352:C:H5''	1.63	0.63
1:AA:872:A:C4	1:AA:874:G:N7	2.65	0.63
4:AD:64:TYR:CD1	4:AD:93:LEU:HD13	2.33	0.63
5:AE:81:GLN:CG	5:AE:149:PRO:HG3	2.24	0.63
22:BA:513:A:O2'	22:BA:514:A:H5'	1.99	0.63
22:BA:1378:A:H2'	22:BA:1380:G:N7	2.14	0.63
22:BA:2052:A:H4'	25:BD:148:GLN:O	1.99	0.63
22:BA:2332:C:OP1	44:BW:44:PHE:HZ	1.81	0.63
22:BA:2447:G:H2'	22:BA:2500:U:H5'	1.80	0.63
25:BD:191:GLY:O	25:BD:192:ALA:HB3	1.97	0.63
26:BE:147:LEU:HD23	26:BE:183:PHE:CD1	2.33	0.63
42:BU:25:LYS:O	42:BU:26:ASN:HB3	1.96	0.63
44:BW:24:ARG:HD3	44:BW:65:LYS:CD	2.28	0.63
46:BY:57:LEU:HD12	46:BY:57:LEU:O	1.98	0.63
49:B1:29:LYS:NZ	49:B1:29:LYS:HB3	2.13	0.63
51:B3:22:LYS:HG2	51:B3:22:LYS:O	1.99	0.63
53:CA:802:A:H2'	53:CA:803:G:C5'	2.28	0.63
53:CA:995:C:N4	53:CA:1046:A:H1'	2.13	0.63
53:CA:996:A:O2'	53:CA:997:U:H6	1.81	0.63
53:CA:1050:G:O2'	53:CA:1051:C:C6	2.45	0.63
2:CB:122:ASP:HB3	2:CB:124:THR:HG22	1.79	0.63
4:CD:72:ARG:HA	4:CD:203:TYR:HE1	1.63	0.63
54:CG:112:ASP:HB3	54:CG:117:LEU:HB3	1.80	0.63
54:CG:136:LYS:O	54:CG:140:VAL:HG23	1.98	0.63
19:CS:20:LYS:O	19:CS:20:LYS:HD3	1.98	0.63
22:DA:379:G:C6	22:DA:396:G:C6	2.86	0.63
22:DA:604:G:C2	22:DA:605:G:C5	2.86	0.63
22:DA:762:U:H4'	22:DA:763:G:C5'	2.28	0.63
22:DA:828:U:H2'	22:DA:829:A:C8	2.33	0.63
22:DA:1125:G:H4'	52:D4:37:GLN:HE21	1.62	0.63
22:DA:1401:G:C2'	22:DA:1402:U:H6	2.08	0.63
22:DA:1708:C:H2'	22:DA:1709:U:C6	2.32	0.63
22:DA:1944:U:O4'	22:DA:1955:U:H1'	1.98	0.63
22:DA:1973:G:H2'	22:DA:1974:C:H6	1.63	0.63
22:DA:2024:G:O2'	22:DA:2025:C:O4'	2.13	0.63
22:DA:2054:A:N7	22:DA:2056:G:H1'	2.13	0.63
22:DA:2657:A:O2'	22:DA:2658:C:C5'	2.46	0.63
26:DE:29:HIS:HB2	33:DL:6:LEU:CD2	2.28	0.63
58:DF:35:LEU:CD1	58:DF:153:ILE:HG23	2.28	0.63
58:DF:39:VAL:CG2	58:DF:49:LEU:HG	2.27	0.63
31:DJ:73:VAL:HG23	31:DJ:74:TYR:N	2.07	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:97:LYS:HG2	39:DR:97:LYS:O	1.98	0.63
41:DT:9:LYS:HG3	46:DY:21:LEU:HD13	1.79	0.63
48:D0:53:VAL:HG23	48:D0:54:ILE:H	1.62	0.63
1:AA:429:U:H1'	1:AA:430:A:H5''	1.80	0.63
1:AA:657:U:O2	15:AO:21:THR:HG23	1.99	0.63
1:AA:683:G:C2'	1:AA:684:U:H5'	2.28	0.63
1:AA:961:U:H2'	1:AA:962:C:C6	2.34	0.63
1:AA:1373:G:H5''	7:AG:35:LYS:HB2	1.78	0.63
5:AE:155:LYS:HB3	8:AH:70:VAL:HG13	1.80	0.63
8:AH:21:LYS:HE2	8:AH:21:LYS:HA	1.78	0.63
16:AP:10:GLY:HA3	16:AP:15:PRO:HA	1.80	0.63
22:BA:391:A:C6	22:BA:411:G:C2	2.87	0.63
22:BA:434:U:O2'	22:BA:436:C:H5	1.81	0.63
22:BA:1063:G:O2'	22:BA:1064:C:O4'	2.16	0.63
22:BA:1105:U:H2'	22:BA:1106:G:C8	2.34	0.63
22:BA:1319:C:O2'	22:BA:1320:C:H5'	1.98	0.63
22:BA:1952:A:C5	32:BK:22:ILE:HG21	2.34	0.63
27:BF:118:ALA:HB2	27:BF:176:PHE:CD2	2.33	0.63
31:BJ:65:THR:CG2	31:BJ:68:LYS:HE3	2.28	0.63
31:BJ:88:THR:CG2	31:BJ:91:GLU:HG3	2.27	0.63
33:BL:55:MET:HA	33:BL:55:MET:HE3	1.79	0.63
37:BP:7:LEU:O	37:BP:10:GLU:HG2	1.98	0.63
39:BR:49:ILE:O	39:BR:49:ILE:HG13	1.99	0.63
51:B3:9:ALA:HB3	51:B3:61:LEU:HD21	1.80	0.63
53:CA:113:G:N2	53:CA:353:A:H8	1.93	0.63
53:CA:149:A:C2	53:CA:150:U:C2	2.87	0.63
53:CA:577:G:O2'	53:CA:578:C:C5'	2.46	0.63
53:CA:677:U:H3	53:CA:713:G:H22	1.45	0.63
6:CF:91:ARG:O	6:CF:93:LYS:HE3	1.98	0.63
54:CG:9:ARG:C	54:CG:10:LYS:HG3	2.23	0.63
54:CG:88:VAL:HG22	54:CG:89:GLU:N	2.07	0.63
14:CN:62:ARG:HB3	14:CN:68:ARG:O	1.97	0.63
22:DA:2052:A:OP1	25:DD:146:ILE:HG12	1.99	0.63
22:DA:2353:G:H21	44:DW:30:VAL:HG21	1.64	0.63
22:DA:2748:A:C4	22:DA:2757:A:N6	2.67	0.63
25:DD:17:GLU:CD	25:DD:17:GLU:H	2.06	0.63
25:DD:61:THR:HB	25:DD:63:PRO:HD2	1.79	0.63
58:DF:19:PHE:HB3	58:DF:21:TYR:CE2	2.34	0.63
58:DF:33:ILE:HB	58:DF:90:LEU:HB2	1.81	0.63
29:DH:83:LYS:HG3	29:DH:149:GLU:HB2	1.80	0.63
30:DI:45:THR:CG2	30:DI:54:ILE:HD13	2.26	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DV:77:VAL:HG23	43:DV:89:ILE:CG2	2.28	0.63
44:DW:20:LEU:HD11	44:DW:35:ILE:CG1	2.27	0.63
46:DY:57:LEU:O	46:DY:60:LYS:HB3	1.99	0.63
1:AA:210:C:C4'	1:AA:211:G:N2	2.61	0.63
1:AA:469:C:H2'	1:AA:470:C:C6	2.33	0.63
1:AA:486:U:H2'	1:AA:487:A:H8	1.63	0.63
1:AA:1130:A:C8	1:AA:1130:A:H5''	2.34	0.63
6:AF:71:ILE:HD11	6:AF:89:VAL:HG21	1.79	0.63
22:BA:996:A:O3'	38:BQ:91:ARG:HG2	1.98	0.63
22:BA:1288:G:C4	22:BA:1327:A:C2	2.86	0.63
22:BA:1696:G:H5''	22:BA:1696:G:H8	1.63	0.63
22:BA:1712:U:C2	22:BA:1713:A:N7	2.66	0.63
22:BA:1797:G:O3'	24:BC:255:LYS:HA	1.98	0.63
24:BC:252:LYS:HZ3	24:BC:252:LYS:HB2	1.63	0.63
25:BD:68:PHE:CE2	25:BD:75:ALA:HA	2.33	0.63
25:BD:169:ARG:C	25:BD:170:VAL:CG1	2.71	0.63
26:BE:41:GLN:OE1	26:BE:43:THR:HG21	1.97	0.63
26:BE:124:PHE:C	26:BE:124:PHE:HD1	2.05	0.63
27:BF:28:PRO:HB2	27:BF:168:LEU:HD22	1.80	0.63
29:BH:3:VAL:HB	29:BH:37:VAL:O	1.98	0.63
32:BK:10:VAL:CB	32:BK:16:ALA:CB	2.75	0.63
33:BL:93:ASN:O	33:BL:95:LEU:N	2.31	0.63
35:BN:24:MET:HG2	35:BN:44:LEU:HD22	1.79	0.63
36:BO:75:GLY:HA3	36:BO:109:ALA:HB3	1.81	0.63
39:BR:7:SER:OG	39:BR:22:LEU:HD13	1.99	0.63
40:BS:18:ARG:HA	40:BS:21:ALA:HB3	1.80	0.63
41:BT:44:LYS:HG3	41:BT:55:VAL:HG11	1.80	0.63
43:BV:19:ARG:O	43:BV:22:ALA:HB3	1.99	0.63
45:BX:44:ARG:HG2	45:BX:45:PHE:N	2.13	0.63
53:CA:337:G:H2'	53:CA:338:A:C8	2.33	0.63
53:CA:372:C:H4'	53:CA:373:A:OP2	1.99	0.63
53:CA:397:A:H5'	53:CA:398:U:OP1	1.99	0.63
53:CA:995:C:H42	53:CA:1046:A:H1'	1.63	0.63
9:CI:71:ILE:HD12	9:CI:72:SER:H	1.62	0.63
12:CL:83:GLY:HA2	12:CL:94:TYR:CD1	2.30	0.63
19:CS:79:TYR:O	19:CS:80:ARG:HB2	1.97	0.63
22:DA:70:G:O2'	22:DA:71:A:H5'	1.98	0.63
22:DA:1268:A:H2'	22:DA:1269:A:C8	2.33	0.63
22:DA:1303:G:HO2'	22:DA:1304:A:H8	1.46	0.63
22:DA:1311:G:H1'	22:DA:1313:U:O4	1.99	0.63
22:DA:1338:G:C2'	22:DA:1339:G:H5'	2.28	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1565:C:N4	22:DA:1567:G:C2	2.66	0.63
22:DA:1759:A:H2'	22:DA:1760:C:H6	1.61	0.63
22:DA:2530:A:H3'	28:DG:156:TYR:OH	1.98	0.63
22:DA:2582:G:H2'	22:DA:2582:G:N3	2.12	0.63
57:DB:11:C:H2'	57:DB:15:A:N6	2.14	0.63
25:DD:137:SER:HB3	25:DD:138:LEU:CD2	2.28	0.63
32:DK:11:ALA:O	32:DK:99:ILE:HG23	1.98	0.63
32:DK:17:ARG:HG2	32:DK:18:ARG:H	1.63	0.63
33:DL:76:GLU:O	33:DL:76:GLU:HG3	1.96	0.63
35:DN:94:TYR:N	35:DN:94:TYR:CD1	2.66	0.63
37:DP:28:LYS:CB	37:DP:39:LEU:HD23	2.28	0.63
37:DP:107:ALA:O	37:DP:108:ARG:C	2.41	0.63
41:DT:9:LYS:HG2	41:DT:9:LYS:O	1.98	0.63
4:AD:99:ASN:O	4:AD:103:ARG:HB2	1.98	0.63
12:AL:115:LYS:O	12:AL:116:TYR:HB2	1.97	0.63
17:AQ:12:VAL:CG1	17:AQ:21:VAL:HG22	2.29	0.63
19:AS:33:TRP:CD1	19:AS:51:HIS:CG	2.87	0.63
22:BA:163:C:OP1	22:BA:163:C:C6	2.51	0.63
22:BA:250:G:H2'	22:BA:251:A:H8	1.60	0.63
22:BA:324:A:C2	22:BA:325:G:H1'	2.34	0.63
22:BA:1853:A:N1	22:BA:2087:G:H1'	2.14	0.63
22:BA:2816:G:O2'	22:BA:2817:U:H5'	1.97	0.63
30:BI:71:LYS:HG2	30:BI:72:THR:H	1.63	0.63
30:BI:116:MET:HE2	30:BI:116:MET:HA	1.81	0.63
31:BJ:21:THR:C	31:BJ:23:LYS:H	2.07	0.63
39:BR:39:LEU:O	39:BR:49:ILE:HG23	1.99	0.63
39:BR:51:VAL:HB	39:BR:52:PRO:HD2	1.78	0.63
53:CA:93:U:H2'	53:CA:95:C:C5	2.33	0.63
53:CA:373:A:N3	53:CA:374:A:C8	2.67	0.63
53:CA:543:U:O2'	53:CA:544:G:H5'	1.99	0.63
53:CA:642:A:O2'	53:CA:643:C:H6	1.80	0.63
53:CA:796:C:OP1	11:CK:127:ARG:HB3	1.99	0.63
53:CA:1226:C:C5	55:CM:102:LYS:HA	2.34	0.63
2:CB:80:LYS:HD3	2:CB:90:PHE:CZ	2.34	0.63
3:CC:26:LYS:HA	3:CC:26:LYS:CE	2.23	0.63
4:CD:154:VAL:O	4:CD:158:LEU:HD12	1.98	0.63
5:CE:13:LYS:HA	5:CE:13:LYS:CE	2.12	0.63
18:CR:63:TYR:CE2	18:CR:69:TYR:OH	2.51	0.63
22:DA:78:U:C2'	22:DA:79:C:H5'	2.28	0.63
22:DA:638:G:H2'	22:DA:639:U:C5	2.33	0.63
22:DA:686:U:H3	50:D2:12:ARG:HB2	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1116:G:C6	22:DA:1117:C:C4	2.87	0.63
22:DA:1124:G:H1'	52:D4:38:GLY:OXT	1.98	0.63
22:DA:1759:A:O2'	22:DA:1760:C:H5'	1.98	0.63
24:DC:33:LEU:O	24:DC:34:GLU:HB3	1.97	0.63
24:DC:166:ARG:HG3	24:DC:166:ARG:O	1.98	0.63
24:DC:172:THR:HG22	24:DC:182:LYS:HG2	1.79	0.63
25:DD:33:ARG:HH21	25:DD:51:THR:HG22	1.63	0.63
32:DK:77:ILE:HD11	32:DK:105:ARG:HH22	1.62	0.63
32:DK:104:THR:C	32:DK:106:GLU:H	2.07	0.63
40:DS:7:HIS:HE1	40:DS:10:ALA:HA	1.62	0.63
42:DU:34:ILE:HG12	42:DU:62:ALA:O	1.99	0.63
43:DV:29:ILE:HD12	43:DV:90:ASP:HA	1.81	0.63
46:DY:19:LEU:HG	46:DY:22:LEU:HD22	1.79	0.63
52:D4:1:MET:HE3	52:D4:34:LYS:HE3	1.79	0.63
52:D4:19:ARG:O	52:D4:20:ASP:CB	2.46	0.63
1:AA:86:G:C2	1:AA:87:C:N4	2.63	0.63
1:AA:462:G:H3'	1:AA:463:U:C6	2.33	0.63
2:AB:127:LYS:HG3	2:AB:128:LEU:N	2.10	0.63
11:AK:124:LYS:HZ3	21:AU:33:ARG:HH21	1.47	0.63
22:BA:121:G:H4'	22:BA:149:A:H5'	1.80	0.63
22:BA:1062:G:H2'	22:BA:1063:G:C8	2.33	0.63
22:BA:1498:C:O2'	22:BA:1499:C:C5'	2.47	0.63
22:BA:2025:C:H2'	22:BA:2026:U:H6	1.63	0.63
27:BF:33:ILE:O	27:BF:90:LEU:HB2	1.98	0.63
27:BF:40:GLY:HA2	27:BF:84:ILE:CD1	2.24	0.63
35:BN:71:ARG:HG3	35:BN:71:ARG:NH2	2.14	0.63
37:BP:58:PHE:CD2	37:BP:75:THR:HG22	2.33	0.63
40:BS:70:LYS:N	40:BS:70:LYS:HD2	2.13	0.63
53:CA:143:A:H2'	53:CA:143:A:N3	2.13	0.63
53:CA:198:G:HO2'	53:CA:199:A:H8	1.45	0.63
53:CA:267:C:OP2	17:CQ:68:LYS:HD2	1.99	0.63
53:CA:609:A:N7	62:CA:1856:HOH:O	2.30	0.63
6:CF:18:VAL:CG2	6:CF:58:HIS:CD2	2.71	0.63
6:CF:43:GLY:HA2	6:CF:58:HIS:HE1	1.60	0.63
54:CG:42:VAL:O	54:CG:43:TYR:HB2	1.98	0.63
14:CN:50:LEU:HB2	14:CN:51:PRO:HD3	1.80	0.63
17:CQ:46:HIS:HE2	17:CQ:48:GLU:HG2	1.62	0.63
22:DA:90:U:H3'	22:DA:91:A:C5'	2.28	0.63
22:DA:620:G:O2'	22:DA:622:G:N7	2.32	0.63
22:DA:788:A:H5''	22:DA:789:A:OP1	1.98	0.63
22:DA:961:C:H5	22:DA:2456:C:O4'	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1301:A:C4	22:DA:1303:G:N7	2.66	0.63
22:DA:1358:G:H2'	22:DA:1372:U:O4	1.97	0.63
22:DA:1802:A:O2'	22:DA:1803:A:H5'	1.98	0.63
22:DA:2297:A:C2	22:DA:2298:A:N7	2.67	0.63
22:DA:2591:C:OP1	24:DC:237:ARG:HD2	1.99	0.63
57:DB:17:C:H42	57:DB:68:C:N4	1.96	0.63
29:DH:78:VAL:HG11	29:DH:144:VAL:HG12	1.79	0.63
37:DP:44:GLY:HA3	37:DP:60:VAL:CG1	2.28	0.63
38:DQ:87:VAL:HG12	38:DQ:88:GLU:N	2.10	0.63
1:AA:49:U:O4	1:AA:365:U:C5	2.47	0.63
1:AA:737:C:H2'	1:AA:738:C:H6	1.64	0.63
4:AD:109:THR:HG22	4:AD:112:GLU:HB2	1.80	0.63
5:AE:67:ARG:O	5:AE:70:MET:HE3	1.99	0.63
7:AG:21:LEU:HD21	7:AG:96:ASN:HD22	1.63	0.63
11:AK:121:ARG:CZ	21:AU:35:GLU:HG3	2.29	0.63
21:AU:33:ARG:CD	21:AU:34:ARG:HG3	2.28	0.63
22:BA:535:G:C2'	22:BA:536:G:H5'	2.29	0.63
22:BA:1491:G:O2'	22:BA:1492:G:H5'	1.98	0.63
22:BA:1507:C:C4	22:BA:1508:A:C2	2.86	0.63
24:BC:93:VAL:HG12	24:BC:94:LEU:H	1.63	0.63
28:BG:8:VAL:HG12	28:BG:9:VAL:N	2.14	0.63
28:BG:83:THR:CA	28:BG:84:LYS:CE	2.77	0.63
31:BJ:88:THR:HG22	31:BJ:91:GLU:HG3	1.77	0.63
33:BL:95:LEU:HD22	33:BL:100:ILE:HD11	1.80	0.63
39:BR:61:ALA:HB1	39:BR:98:ILE:H	1.63	0.63
41:BT:64:LYS:HA	41:BT:79:ASP:OD1	1.98	0.63
53:CA:327:A:C2	53:CA:329:A:N3	2.67	0.63
53:CA:499:A:C6	53:CA:547:A:C8	2.87	0.63
53:CA:624:C:H2'	53:CA:625:U:O4'	1.99	0.63
3:CC:84:GLU:C	3:CC:86:LEU:H	2.05	0.63
54:CG:110:ARG:HG3	54:CG:111:GLY:N	2.12	0.63
21:CU:28:LEU:HD23	21:CU:28:LEU:O	1.98	0.63
22:DA:117:G:N1	22:DA:119:A:N6	2.46	0.63
22:DA:118:A:C8	22:DA:119:A:C8	2.86	0.63
22:DA:304:U:O2'	22:DA:305:C:C6	2.46	0.63
22:DA:396:G:O2'	22:DA:397:U:C5'	2.47	0.63
22:DA:632:A:H5''	33:DL:68:SER:OG	1.99	0.63
22:DA:971:G:H2'	22:DA:972:A:H5'	1.79	0.63
22:DA:1387:A:C5'	22:DA:1469:A:H1'	2.27	0.63
22:DA:1416:G:C2	22:DA:1417:C:C4	2.87	0.63
25:DD:21:SER:O	25:DD:23:PRO:HD3	1.99	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:65:LEU:HD11	58:DF:87:LYS:NZ	2.13	0.63
58:DF:65:LEU:HG	58:DF:67:THR:HG23	1.81	0.63
31:DJ:45:THR:H	31:DJ:46:PRO:CD	2.10	0.63
35:DN:84:GLY:O	35:DN:88:ALA:HB2	1.99	0.63
42:DU:35:VAL:HB	42:DU:38:ILE:HD13	1.81	0.63
46:DY:4:LYS:HZ3	46:DY:4:LYS:HB2	1.62	0.63
47:DZ:23:LEU:HD21	47:DZ:53:MET:HE1	1.81	0.63
47:DZ:28:LEU:HD23	47:DZ:28:LEU:N	2.14	0.63
1:AA:86:G:N2	1:AA:87:C:N4	2.47	0.63
1:AA:923:A:H5''	5:AE:25:LYS:HE2	1.81	0.63
1:AA:1234:C:H2'	1:AA:1235:U:H5'	1.79	0.63
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.33	0.63
4:AD:86:GLY:O	4:AD:89:LEU:HB3	1.99	0.63
4:AD:190:LEU:O	4:AD:191:SER:HB2	1.98	0.63
5:AE:110:MET:O	5:AE:114:LEU:CB	2.46	0.63
5:AE:120:HIS:O	5:AE:121:ASN:CB	2.46	0.63
10:AJ:18:ILE:CG2	10:AJ:19:ASP:N	2.61	0.63
12:AL:2:THR:CB	12:AL:5:GLN:HG3	2.26	0.63
14:AN:90:GLY:O	14:AN:92:ILE:N	2.31	0.63
22:BA:699:A:H4'	22:BA:1634:A:N7	2.13	0.63
22:BA:1275:A:H4'	22:BA:1276:A:OP1	1.99	0.63
22:BA:2405:G:H1'	22:BA:2412:A:N6	2.14	0.63
22:BA:2800:A:C2	22:BA:2895:G:H1'	2.34	0.63
26:BE:172:ALA:O	26:BE:175:ILE:HG22	1.99	0.63
27:BF:132:ARG:O	27:BF:133:GLU:HB3	1.97	0.63
31:BJ:44:TYR:O	31:BJ:45:THR:CB	2.47	0.63
31:BJ:44:TYR:HD2	38:BQ:63:ARG:HG2	1.61	0.63
32:BK:1:MET:HE2	32:BK:32:TYR:CE1	2.33	0.63
53:CA:888:G:O3'	53:CA:1488:G:H4'	1.97	0.63
53:CA:1040:U:C2'	53:CA:1041:G:H5'	2.29	0.63
53:CA:1160:G:C6	53:CA:1181:G:O6	2.52	0.63
53:CA:1190:G:O3'	3:CC:2:GLN:HB3	1.99	0.63
53:CA:1308:U:OP1	55:CM:95:PRO:HB3	1.98	0.63
53:CA:1417:G:C6	53:CA:1482:G:C6	2.87	0.63
3:CC:29:ALA:CB	14:CN:64:ARG:HH12	2.09	0.63
4:CD:104:MET:SD	4:CD:142:VAL:HG13	2.39	0.63
6:CF:99:ALA:O	6:CF:100:SER:HB2	1.96	0.63
54:CG:4:ARG:CZ	54:CG:6:ILE:HG22	2.28	0.63
54:CG:134:VAL:CB	54:CG:137:ARG:HH21	2.06	0.63
8:CH:50:VAL:HG22	8:CH:50:VAL:O	1.99	0.63
9:CI:38:PHE:HE2	9:CI:71:ILE:HG22	1.62	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:12:LYS:HE2	55:CM:16:ILE:HG22	1.80	0.63
55:CM:103:THR:HG22	55:CM:104:ASN:N	2.14	0.63
22:DA:33:C:H2'	22:DA:446:G:N2	2.14	0.63
22:DA:259:G:H2'	22:DA:260:G:H5'	1.79	0.63
22:DA:605:G:H2'	22:DA:606:U:C6	2.33	0.63
22:DA:973:A:H5'	22:DA:974:G:OP2	1.98	0.63
22:DA:1166:G:H22	22:DA:1184:U:H1'	1.61	0.63
22:DA:1255:U:H2'	26:DE:68:ALA:HB2	1.81	0.63
22:DA:1339:G:H5'	22:DA:1393:A:N1	2.13	0.63
22:DA:1607:C:C4'	22:DA:1608:A:C8	2.81	0.63
22:DA:2040:G:C5	22:DA:2041:U:C5	2.87	0.63
28:DG:120:ILE:O	28:DG:120:ILE:HG23	1.97	0.63
30:DI:86:LYS:O	30:DI:87:SER:HB2	1.99	0.63
35:DN:47:VAL:C	35:DN:50:PRO:HD2	2.23	0.63
36:DO:62:LEU:HD11	36:DO:65:THR:HG23	1.81	0.63
38:DQ:57:ARG:C	38:DQ:59:LEU:H	2.07	0.63
42:DU:20:LYS:HD2	42:DU:38:ILE:HD11	1.81	0.63
45:DX:26:ARG:HD3	45:DX:28:PHE:CE2	2.34	0.63
48:D0:28:SER:O	48:D0:36:LYS:HA	1.99	0.63
1:AA:243:A:C2	1:AA:245:U:H2'	2.33	0.63
1:AA:258:G:N2	1:AA:259:G:H1'	2.14	0.63
1:AA:815:A:H4'	1:AA:817:C:C4	2.34	0.63
1:AA:1127:G:O2'	1:AA:1128:C:C5'	2.43	0.63
1:AA:1433:A:N7	1:AA:1468:A:C6	2.66	0.63
3:AC:21:TRP:CG	3:AC:58:ARG:HG2	2.34	0.63
3:AC:144:GLY:O	3:AC:145:ALA:HB3	1.98	0.63
5:AE:155:LYS:HD2	5:AE:155:LYS:N	2.13	0.63
7:AG:69:ARG:HG3	7:AG:95:ARG:HG2	1.80	0.63
7:AG:76:SER:HA	7:AG:85:GLN:HB2	1.80	0.63
9:AI:27:ILE:N	9:AI:27:ILE:HD12	2.14	0.63
13:AM:36:ALA:HB3	13:AM:38:ILE:HG12	1.80	0.63
13:AM:45:SER:O	13:AM:46:GLU:HB2	1.99	0.63
22:BA:340:A:H2'	22:BA:341:C:H5'	1.80	0.63
22:BA:1071:G:C8	22:BA:1089:A:N6	2.66	0.63
22:BA:1165:A:H2'	22:BA:1166:G:H8	1.61	0.63
22:BA:1624:U:H2'	22:BA:1625:C:H6	1.64	0.63
22:BA:1725:U:H2'	22:BA:1726:C:H6	1.61	0.63
22:BA:1885:A:C2	22:BA:1886:U:H1'	2.34	0.63
22:BA:2402:U:H2'	22:BA:2403:C:OP2	1.99	0.63
22:BA:2661:G:O2'	22:BA:2662:A:H5'	1.98	0.63
27:BF:46:LYS:HD2	27:BF:46:LYS:N	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:92:LEU:HD21	33:BL:124:GLY:HA3	1.80	0.63
34:BM:6:ARG:HD2	34:BM:8:LYS:NZ	2.14	0.63
36:BO:75:GLY:HA2	36:BO:106:LEU:HD12	1.79	0.63
39:BR:60:LYS:H	39:BR:100:GLY:HA3	1.63	0.63
47:BZ:13:ILE:HG22	47:BZ:14:GLY:N	2.13	0.63
48:B0:33:SER:OG	48:B0:35:GLU:HG3	1.99	0.63
53:CA:983:A:O2'	53:CA:984:C:C5'	2.47	0.63
53:CA:994:A:HO2'	53:CA:995:C:H6	1.46	0.63
53:CA:1285:A:O2'	53:CA:1286:U:H5'	1.99	0.63
4:CD:190:LEU:O	4:CD:191:SER:O	2.17	0.63
5:CE:35:LEU:HD11	5:CE:136:VAL:HG11	1.80	0.63
19:CS:68:HIS:HB3	19:CS:72:GLU:HG3	1.80	0.63
22:DA:1351:C:O2'	22:DA:1571:A:H1'	1.99	0.63
22:DA:1817:G:H5''	24:DC:86:ARG:NH2	2.14	0.63
22:DA:1973:G:C4	22:DA:1974:C:C5	2.87	0.63
22:DA:2239:G:OP2	62:DA:3530:HOH:O	2.16	0.63
25:DD:39:ASP:CG	25:DD:40:LEU:H	2.06	0.63
58:DF:32:LYS:HB3	58:DF:156:THR:HB	1.80	0.63
29:DH:78:VAL:HG21	29:DH:144:VAL:CG1	2.29	0.63
30:DI:36:GLU:HB2	30:DI:40:ALA:HB3	1.80	0.63
43:DV:55:GLU:O	43:DV:57:TYR:N	2.32	0.63
46:DY:21:LEU:HD23	46:DY:25:GLN:CD	2.24	0.63
1:AA:61:G:O2'	1:AA:62:U:H5'	1.97	0.62
1:AA:102:G:H2'	1:AA:103:U:H6	1.64	0.62
1:AA:322:C:H5	1:AA:328:C:H5	1.47	0.62
1:AA:428:G:H1'	1:AA:430:A:N7	2.14	0.62
1:AA:754:C:H5''	1:AA:754:C:O2	1.99	0.62
1:AA:1130:A:H5''	1:AA:1130:A:H8	1.63	0.62
1:AA:1305:G:HO2'	1:AA:1306:A:H8	1.47	0.62
2:AB:58:LYS:HD3	2:AB:58:LYS:C	2.24	0.62
7:AG:112:ASP:O	7:AG:113:LYS:HD3	1.98	0.62
8:AH:58:LEU:HD11	8:AH:60:LEU:HD21	1.80	0.62
22:BA:1626:A:O2'	22:BA:1627:G:OP2	2.14	0.62
22:BA:2547:A:O2'	22:BA:2548:U:H5'	1.99	0.62
26:BE:5:LEU:HA	26:BE:120:VAL:HG13	1.81	0.62
26:BE:175:ILE:HG23	26:BE:175:ILE:O	1.98	0.62
28:BG:84:LYS:CG	28:BG:132:LEU:N	2.42	0.62
29:BH:62:LEU:HD12	29:BH:62:LEU:C	2.23	0.62
32:BK:10:VAL:HB	32:BK:16:ALA:CB	2.29	0.62
35:BN:8:ARG:HB3	35:BN:10:LEU:HD22	1.80	0.62
41:BT:24:MET:HG3	41:BT:29:THR:HG23	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:30:PRO:CG	45:BX:32:LEU:HD11	2.29	0.62
48:B0:29:VAL:HG13	48:B0:34:GLY:O	1.99	0.62
53:CA:84:U:O2'	53:CA:85:U:H5'	1.98	0.62
53:CA:1287:A:O2'	53:CA:1288:A:C8	2.49	0.62
2:CB:84:LEU:HG	2:CB:84:LEU:O	1.96	0.62
3:CC:181:ILE:HG22	3:CC:181:ILE:O	1.96	0.62
6:CF:98:GLU:O	6:CF:99:ALA:HB3	1.98	0.62
22:DA:2:G:C6	22:DA:3:U:C4	2.87	0.62
22:DA:85:G:HO2'	22:DA:86:G:H8	1.46	0.62
22:DA:236:C:H2'	22:DA:237:C:H6	1.64	0.62
22:DA:247:G:C8	22:DA:249:C:C6	2.87	0.62
22:DA:303:G:C2	22:DA:304:U:C2	2.87	0.62
22:DA:310:A:HO2'	22:DA:311:A:H8	0.73	0.62
22:DA:445:C:O2'	22:DA:446:G:O4'	2.17	0.62
22:DA:1009:A:O2'	22:DA:1010:A:C8	2.49	0.62
22:DA:1081:U:H4'	30:DI:123:ALA:HA	1.81	0.62
22:DA:1238:G:O2'	22:DA:1239:G:H5'	1.99	0.62
22:DA:1301:A:C8	22:DA:1303:G:C8	2.87	0.62
22:DA:2019:A:H4'	38:DQ:33:VAL:HG21	1.81	0.62
22:DA:2037:A:H2'	22:DA:2038:G:C8	2.34	0.62
22:DA:2287:A:HO2'	22:DA:2288:A:H3'	1.62	0.62
22:DA:2619:C:H4'	25:DD:156:PHE:O	1.99	0.62
22:DA:2674:G:H4'	32:DK:30:ARG:HD2	1.81	0.62
24:DC:2:VAL:O	24:DC:3:VAL:HB	1.98	0.62
25:DD:10:GLY:HA2	37:DP:4:ILE:CD1	2.29	0.62
25:DD:107:VAL:CG1	25:DD:109:VAL:HG23	2.28	0.62
32:DK:107:LEU:C	32:DK:109:SER:H	2.07	0.62
33:DL:81:ASP:C	33:DL:82:LEU:HD12	2.24	0.62
1:AA:75:G:C5	1:AA:76:G:C8	2.86	0.62
1:AA:188:C:O2	1:AA:188:C:H2'	1.98	0.62
1:AA:197:A:H4'	1:AA:198:G:O5'	1.97	0.62
1:AA:1162:C:H2'	1:AA:1163:A:C8	2.34	0.62
1:AA:1427:C:C2'	1:AA:1428:A:H5'	2.30	0.62
2:AB:99:MET:HA	2:AB:106:VAL:HG21	1.81	0.62
7:AG:29:LEU:HD23	7:AG:29:LEU:C	2.24	0.62
7:AG:108:ARG:NH2	7:AG:118:ARG:HH22	1.97	0.62
8:AH:45:ILE:C	8:AH:63:LYS:HD2	2.23	0.62
8:AH:76:ARG:NE	8:AH:78:SER:O	2.32	0.62
14:AN:40:ARG:NH1	14:AN:44:VAL:HG21	2.13	0.62
16:AP:10:GLY:O	16:AP:11:ALA:HB2	1.99	0.62
22:BA:264:C:H2'	22:BA:265:A:H5''	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1279:G:O2'	22:BA:1280:G:H5'	1.99	0.62
22:BA:1739:A:C2	22:BA:1740:G:H1'	2.34	0.62
22:BA:2522:U:H2'	22:BA:2523:G:H5'	1.81	0.62
23:BB:7:G:O2'	36:BO:38:GLN:NE2	2.32	0.62
24:BC:70:LYS:HD2	24:BC:99:GLU:OE1	1.99	0.62
25:BD:159:LYS:HZ2	25:BD:160:LYS:H	1.46	0.62
26:BE:72:SER:C	26:BE:74:LYS:H	2.05	0.62
26:BE:152:GLU:O	26:BE:153:LEU:HG	1.99	0.62
27:BF:82:TYR:CD2	27:BF:83:PRO:HD2	2.34	0.62
27:BF:107:VAL:N	27:BF:108:PRO:CD	2.62	0.62
28:BG:23:ILE:H	28:BG:23:ILE:CD1	2.08	0.62
29:BH:99:ILE:HG22	29:BH:99:ILE:O	1.99	0.62
32:BK:70:ARG:HD3	32:BK:76:VAL:HG22	1.81	0.62
33:BL:19:LEU:CB	33:BL:27:LEU:HD22	2.24	0.62
34:BM:64:TRP:CH2	34:BM:106:ASP:HB2	2.35	0.62
34:BM:71:LYS:HD3	34:BM:95:LEU:CD1	2.29	0.62
54:CG:75:LYS:HG3	54:CG:76:SER:N	2.13	0.62
10:CJ:52:LEU:HB2	14:CN:80:ARG:HE	1.64	0.62
55:CM:2:ARG:NE	55:CM:8:ILE:HD11	2.13	0.62
55:CM:87:GLY:O	55:CM:91:ARG:HD2	2.00	0.62
17:CQ:27:PHE:CD1	17:CQ:36:PHE:HB3	2.33	0.62
22:DA:233:A:O2'	22:DA:234:U:O5'	2.16	0.62
22:DA:850:U:O2'	47:DZ:22:THR:HG22	1.98	0.62
22:DA:852:U:H2'	22:DA:853:C:H6	1.64	0.62
22:DA:974:G:H1'	22:DA:975:A:C8	2.34	0.62
22:DA:975:A:N3	22:DA:976:G:C8	2.66	0.62
22:DA:989:G:C4'	22:DA:990:A:OP1	2.46	0.62
22:DA:1062:G:C8	22:DA:1088:A:C8	2.87	0.62
22:DA:1176:U:H2'	22:DA:1177:G:C8	2.34	0.62
22:DA:1416:G:C4	22:DA:1417:C:C5	2.87	0.62
22:DA:1670:C:C5	22:DA:1671:U:C4	2.87	0.62
22:DA:2358:A:H61	33:DL:54:GLN:HE22	1.47	0.62
22:DA:2507:C:H1'	22:DA:2583:G:C2	2.34	0.62
24:DC:93:VAL:HG13	24:DC:94:LEU:N	2.14	0.62
24:DC:183:VAL:HG13	24:DC:185:ALA:H	1.63	0.62
58:DF:11:VAL:HG12	58:DF:12:VAL:N	2.14	0.62
30:DI:79:LEU:HD22	30:DI:100:ILE:HD12	1.81	0.62
30:DI:109:ALA:HB1	30:DI:125:THR:HG22	1.79	0.62
34:DM:97:GLN:HB2	34:DM:98:PRO:HD2	1.81	0.62
48:D0:27:LEU:N	48:D0:27:LEU:HD22	2.14	0.62
1:AA:1032:G:H2'	1:AA:1033:G:H5'	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:65:TYR:CD2	12:AL:86:VAL:HG21	2.34	0.62
14:AN:9:GLU:OE1	14:AN:60:ARG:HB3	2.00	0.62
21:AU:13:VAL:HG13	21:AU:15:LEU:CG	2.27	0.62
22:BA:2810:A:H2'	22:BA:2811:G:O4'	1.99	0.62
24:BC:169:ALA:O	24:BC:185:ALA:HB3	1.99	0.62
25:BD:182:ALA:O	25:BD:183:GLU:C	2.43	0.62
28:BG:83:THR:C	28:BG:84:LYS:HD3	2.25	0.62
33:BL:100:ILE:C	33:BL:100:ILE:HD12	2.24	0.62
44:BW:39:GLN:HG3	44:BW:42:THR:H	1.64	0.62
53:CA:198:G:C4	53:CA:199:A:C8	2.86	0.62
53:CA:745:G:H2'	53:CA:746:A:C8	2.33	0.62
53:CA:1221:G:H4'	19:CS:35:ARG:HH21	1.61	0.62
53:CA:1242:G:N2	53:CA:1243:C:H1'	2.14	0.62
53:CA:1394:A:H2'	53:CA:1501:C:O2'	1.98	0.62
8:CH:59:GLU:C	8:CH:60:LEU:HD12	2.23	0.62
10:CJ:101:SER:O	10:CJ:102:LEU:HB2	1.99	0.62
55:CM:13:HIS:HB3	55:CM:16:ILE:CD1	2.30	0.62
22:DA:279:A:N6	22:DA:361:G:O2'	2.33	0.62
22:DA:1342:A:C6	22:DA:1397:U:C6	2.86	0.62
22:DA:1389:G:O2'	22:DA:1390:U:H5'	1.99	0.62
22:DA:1439:A:N7	22:DA:1440:U:N1	2.48	0.62
26:DE:126:VAL:HG22	26:DE:127:GLU:OE2	2.00	0.62
26:DE:136:GLN:HA	26:DE:139:LYS:HG2	1.81	0.62
58:DF:47:LYS:HA	58:DF:50:ASP:HB3	1.79	0.62
40:DS:82:MET:HE2	40:DS:84:ARG:HH12	1.65	0.62
42:DU:83:GLY:O	42:DU:93:ARG:HA	1.98	0.62
1:AA:265:G:C2'	1:AA:266:G:H5'	2.29	0.62
1:AA:1348:U:O2'	1:AA:1349:A:C5'	2.48	0.62
2:AB:59:ILE:HD12	2:AB:59:ILE:C	2.24	0.62
3:AC:59:PRO:HG2	3:AC:62:SER:HB3	1.82	0.62
7:AG:12:LEU:H	7:AG:12:LEU:CD2	1.92	0.62
10:AJ:74:VAL:HG12	10:AJ:75:ASP:H	1.63	0.62
15:AO:18:ALA:O	15:AO:19:ASN:HB2	1.98	0.62
19:AS:79:TYR:CE1	19:AS:80:ARG:HB2	2.35	0.62
22:BA:95:A:O2'	46:BY:41:HIS:CD2	2.51	0.62
22:BA:1276:A:C8	22:BA:1276:A:H5''	2.35	0.62
22:BA:2013:A:OP1	40:BS:96:ILE:HA	1.98	0.62
22:BA:2134:A:O2'	22:BA:2135:A:H8	1.82	0.62
22:BA:2225:A:H4'	22:BA:2226:C:H6	1.63	0.62
62:BB:315:HOH:O	43:BV:14:LYS:HD2	1.98	0.62
24:BC:67:LYS:O	24:BC:68:ARG:HB2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:151:THR:O	25:BD:152:PRO:C	2.35	0.62
27:BF:168:LEU:HD12	27:BF:168:LEU:C	2.23	0.62
31:BJ:40:HIS:H	31:BJ:40:HIS:HD2	1.45	0.62
38:BQ:65:ASN:ND2	38:BQ:69:ARG:NH2	2.42	0.62
41:BT:32:LEU:N	41:BT:83:ALA:CB	2.59	0.62
44:BW:22:VAL:HG13	44:BW:25:PHE:CE2	2.34	0.62
53:CA:210:C:O2	53:CA:210:C:H2'	1.98	0.62
53:CA:277:C:O2'	53:CA:278:G:C5'	2.48	0.62
53:CA:430:A:O2'	53:CA:431:A:H5'	1.99	0.62
53:CA:979:C:H2'	53:CA:980:C:O4'	1.99	0.62
53:CA:1144:G:H21	53:CA:1146:A:H62	1.45	0.62
3:CC:10:ARG:HD3	3:CC:177:LEU:HA	1.80	0.62
5:CE:14:LEU:HD12	5:CE:15:ILE:N	2.13	0.62
5:CE:79:THR:HA	5:CE:121:ASN:OD1	2.00	0.62
6:CF:9:MET:HE1	18:CR:64:LEU:HA	1.81	0.62
54:CG:99:ALA:HB3	54:CG:100:MET:HE2	1.81	0.62
12:CL:26:CYS:HB2	12:CL:29:LYS:HE2	1.81	0.62
55:CM:12:LYS:H	55:CM:44:ILE:HG13	1.65	0.62
14:CN:2:LYS:HD3	14:CN:5:MET:HG2	1.82	0.62
22:DA:27:G:H1'	22:DA:513:A:H62	1.64	0.62
22:DA:185:G:C6	22:DA:212:G:C2	2.87	0.62
22:DA:492:A:H2'	22:DA:493:G:C8	2.35	0.62
22:DA:506:G:H4'	22:DA:507:A:H5'	1.80	0.62
22:DA:969:G:H2'	22:DA:970:U:C6	2.35	0.62
22:DA:1117:C:O2'	22:DA:1118:C:H5'	1.98	0.62
22:DA:1376:C:H5''	62:DA:3411:HOH:O	1.99	0.62
22:DA:1494:A:H2'	22:DA:1495:A:H8	1.63	0.62
22:DA:1754:A:C6	22:DA:1755:A:C6	2.86	0.62
22:DA:1794:A:H1'	22:DA:1900:A:C2	2.34	0.62
57:DB:38:C:H4'	36:DO:100:HIS:NE2	2.14	0.62
57:DB:41:G:H3'	57:DB:42:C:C5'	2.28	0.62
57:DB:81:G:C4	57:DB:82:U:C5	2.88	0.62
28:DG:8:VAL:HG11	28:DG:49:LEU:HD23	1.81	0.62
43:DV:2:PHE:HD1	43:DV:50:MET:HE3	1.63	0.62
47:DZ:6:ILE:O	47:DZ:34:THR:HA	2.00	0.62
1:AA:199:A:O2'	1:AA:200:G:O4'	2.18	0.62
1:AA:345:C:O2	32:BK:117:SER:HA	2.00	0.62
1:AA:537:G:H5''	12:AL:109:ARG:NH1	2.14	0.62
1:AA:878:A:H5''	8:AH:80:PRO:HG2	1.80	0.62
1:AA:946:A:H2'	1:AA:947:G:C8	2.35	0.62
1:AA:1228:C:H2'	1:AA:1229:A:C8	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1358:U:C6	1:AA:1359:C:C5	2.88	0.62
5:AE:105:ILE:O	5:AE:105:ILE:HG13	1.99	0.62
5:AE:153:ALA:HA	5:AE:156:ARG:HB3	1.78	0.62
7:AG:30:MET:HG2	7:AG:31:VAL:H	1.64	0.62
20:AT:82:ILE:HD12	20:AT:82:ILE:C	2.24	0.62
22:BA:1849:G:H2'	22:BA:1850:G:H8	1.63	0.62
22:BA:2135:A:O2'	22:BA:2136:G:C8	2.47	0.62
22:BA:2199:A:C8	22:BA:2199:A:H5''	2.34	0.62
62:BA:3285:HOH:O	26:BE:98:LYS:HE2	2.00	0.62
24:BC:242:HIS:O	24:BC:244:VAL:HG13	1.99	0.62
26:BE:31:VAL:HG21	26:BE:104:ALA:CB	2.27	0.62
27:BF:4:HIS:O	27:BF:7:TYR:HB3	1.99	0.62
29:BH:2:GLN:C	29:BH:3:VAL:HG13	2.23	0.62
34:BM:17:ASN:O	34:BM:38:ARG:HD3	1.99	0.62
36:BO:31:THR:HG22	36:BO:34:HIS:O	1.99	0.62
39:BR:49:ILE:HG21	39:BR:53:PHE:N	2.14	0.62
40:BS:20:VAL:HA	40:BS:23:LEU:HD12	1.81	0.62
44:BW:24:ARG:HB2	44:BW:65:LYS:HD3	1.79	0.62
51:B3:26:ALA:O	51:B3:27:ASN:CB	2.44	0.62
53:CA:252:U:H5'	53:CA:252:U:H6	1.63	0.62
53:CA:254:G:H5''	17:CQ:70:LYS:CD	2.30	0.62
53:CA:429:U:H1'	53:CA:430:A:H5''	1.80	0.62
53:CA:1151:A:O3'	10:CJ:70:HIS:CE1	2.51	0.62
2:CB:130:LYS:O	2:CB:134:LEU:HG	1.98	0.62
4:CD:23:GLY:HA2	4:CD:160:LEU:HD12	1.80	0.62
55:CM:18:LEU:HD22	55:CM:32:ILE:HG21	1.81	0.62
17:CQ:68:LYS:C	17:CQ:69:THR:HG23	2.24	0.62
22:DA:46:G:C2	22:DA:47:C:C5	2.86	0.62
22:DA:612:G:C2	22:DA:614:A:H1'	2.34	0.62
22:DA:1245:G:H4'	26:DE:33:VAL:HG11	1.80	0.62
22:DA:1364:G:C5	45:DX:1:SER:HB2	2.34	0.62
22:DA:1779:U:H5	22:DA:1784:A:N7	1.97	0.62
22:DA:2575:C:H5'	25:DD:148:GLN:O	2.00	0.62
22:DA:2850:A:OP2	22:DA:2866:U:N3	2.30	0.62
58:DF:28:PRO:HB2	58:DF:168:LEU:HD21	1.80	0.62
31:DJ:8:PRO:HG2	31:DJ:9:GLU:N	2.15	0.62
31:DJ:95:ARG:HH11	31:DJ:99:ARG:HH21	1.46	0.62
44:DW:51:GLY:HA2	44:DW:59:PHE:HD2	1.64	0.62
1:AA:182:A:N3	1:AA:184:G:C8	2.68	0.62
1:AA:486:U:H5''	1:AA:486:U:H6	1.63	0.62
1:AA:1015:G:O2'	1:AA:1016:A:H5'	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:59:ILE:C	5:AE:59:ILE:HD12	2.23	0.62
10:AJ:6:ILE:HD11	10:AJ:79:PRO:CB	2.29	0.62
14:AN:91:GLU:O	14:AN:93:PRO:HD3	1.98	0.62
17:AQ:20:ILE:CB	17:AQ:47:ASP:OD1	2.47	0.62
22:BA:417:C:H2'	22:BA:418:C:C6	2.34	0.62
22:BA:443:A:C8	26:BE:40:ARG:HD3	2.34	0.62
22:BA:1062:G:C8	22:BA:1088:A:C8	2.88	0.62
22:BA:2484:G:OP1	34:BM:44:ARG:HD3	2.00	0.62
24:BC:106:PRO:HB3	24:BC:141:HIS:CE1	2.33	0.62
28:BG:39:ALA:HB1	28:BG:57:TYR:CG	2.35	0.62
46:BY:31:GLN:HG2	46:BY:37:LEU:HB2	1.81	0.62
53:CA:1348:U:H4'	9:CI:121:ARG:HG3	1.81	0.62
2:CB:119:GLN:CG	2:CB:124:THR:HG21	2.29	0.62
3:CC:46:LEU:HD22	3:CC:75:VAL:HG22	1.80	0.62
6:CF:51:ILE:HG22	6:CF:51:ILE:O	1.98	0.62
8:CH:24:VAL:HG12	8:CH:62:LEU:HD21	1.82	0.62
9:CI:51:LEU:C	9:CI:53:LEU:H	2.08	0.62
17:CQ:45:VAL:HG11	17:CQ:60:ILE:HG21	1.82	0.62
22:DA:271:G:O2'	22:DA:272:A:C5'	2.47	0.62
22:DA:340:A:C2'	22:DA:341:C:H5'	2.29	0.62
22:DA:1282:U:H2'	22:DA:1283:G:O4'	1.99	0.62
24:DC:196:ASN:O	24:DC:197:ALA:HB3	1.99	0.62
25:DD:178:VAL:HG12	25:DD:179:ARG:HG3	1.80	0.62
58:DF:122:ASP:HB2	58:DF:126:ASN:HB2	1.81	0.62
28:DG:116:LEU:HD13	28:DG:121:THR:HA	1.81	0.62
33:DL:103:ILE:HD12	33:DL:103:ILE:N	2.13	0.62
35:DN:47:VAL:O	35:DN:50:PRO:HD2	1.99	0.62
36:DO:31:THR:HG23	36:DO:34:HIS:O	1.99	0.62
37:DP:56:SER:HB2	37:DP:75:THR:HG21	1.82	0.62
42:DU:94:PHE:HD2	42:DU:94:PHE:O	1.83	0.62
49:D1:16:THR:CG2	49:D1:41:VAL:HB	2.30	0.62
1:AA:4:U:O2	1:AA:4:U:H2'	1.99	0.62
1:AA:373:A:C8	1:AA:373:A:H5'	2.35	0.62
1:AA:510:A:N3	1:AA:543:U:H1'	2.14	0.62
1:AA:539:A:H2'	1:AA:540:G:C8	2.34	0.62
1:AA:991:U:H4'	1:AA:992:U:OP1	2.00	0.62
2:AB:26:MET:HA	2:AB:26:MET:HE3	1.81	0.62
2:AB:71:THR:HG21	2:AB:94:ARG:HD3	1.81	0.62
3:AC:134:LYS:HE3	3:AC:138:GLN:HE22	1.64	0.62
7:AG:7:GLY:O	7:AG:8:GLN:HB3	2.00	0.62
19:AS:10:ILE:HD11	19:AS:15:LEU:HB2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:118:A:C8	22:BA:119:A:C8	2.87	0.62
22:BA:161:A:H3'	22:BA:162:U:H5''	1.81	0.62
22:BA:364:C:H2'	22:BA:365:U:H6	1.65	0.62
22:BA:1054:A:H2'	22:BA:1055:G:C8	2.34	0.62
22:BA:1138:G:N2	31:BJ:108:MET:HE2	2.14	0.62
22:BA:1141:U:C4'	22:BA:1142:A:O5'	2.44	0.62
22:BA:1471:G:C5	22:BA:1472:C:C5	2.88	0.62
22:BA:1507:C:C4	22:BA:1508:A:H2	2.17	0.62
22:BA:2707:U:O2	35:BN:71:ARG:NH1	2.33	0.62
22:BA:2791:G:H5''	22:BA:2791:G:H8	1.65	0.62
27:BF:7:TYR:O	27:BF:12:VAL:HG12	2.00	0.62
29:BH:67:ALA:HA	29:BH:138:VAL:CB	2.28	0.62
29:BH:78:VAL:CG1	29:BH:145:ASN:HB3	2.30	0.62
34:BM:53:MET:HE1	34:BM:103:TYR:CD2	2.35	0.62
35:BN:18:GLN:HE21	35:BN:22:ARG:NH1	1.96	0.62
35:BN:71:ARG:CG	35:BN:71:ARG:NH2	2.55	0.62
38:BQ:63:ARG:HD2	38:BQ:63:ARG:C	2.24	0.62
41:BT:13:ALA:O	41:BT:32:LEU:HB2	2.00	0.62
53:CA:146:G:C2'	53:CA:147:G:H5'	2.30	0.62
53:CA:754:C:C2'	53:CA:755:G:H5'	2.30	0.62
53:CA:1151:A:C6	53:CA:1152:A:N6	2.67	0.62
54:CG:32:ASP:HB2	54:CG:34:LYS:HD3	1.81	0.62
10:CJ:30:LYS:HG2	10:CJ:36:VAL:HG22	1.81	0.62
12:CL:34:THR:HG22	12:CL:35:ARG:HG2	1.80	0.62
14:CN:9:GLU:HA	14:CN:12:ARG:HD2	1.82	0.62
56:CP:67:ILE:HD11	56:CP:75:ILE:HD12	1.82	0.62
17:CQ:45:VAL:HG21	17:CQ:60:ILE:HG21	1.79	0.62
22:DA:586:A:H5'	26:DE:84:THR:HG21	1.81	0.62
22:DA:815:C:OP2	39:DR:85:LYS:HE2	1.99	0.62
22:DA:1060:U:C4'	22:DA:1061:U:O5'	2.41	0.62
22:DA:1324:G:O2'	22:DA:1616:A:C6	2.53	0.62
22:DA:1381:G:H2'	22:DA:1382:G:H5''	1.80	0.62
22:DA:1649:G:O2'	22:DA:1650:A:C5'	2.48	0.62
22:DA:1773:A:N7	22:DA:1829:A:H1'	2.15	0.62
22:DA:1998:A:H2'	22:DA:1999:C:C6	2.32	0.62
22:DA:2336:A:C8	44:DW:40:ARG:NH2	2.68	0.62
22:DA:2726:A:O2'	22:DA:2727:A:P	2.57	0.62
22:DA:2822:G:H5''	25:DD:164:GLN:HE22	1.63	0.62
25:DD:133:THR:HG23	25:DD:134:HIS:H	1.64	0.62
26:DE:111:GLU:CB	26:DE:114:ARG:HH21	2.12	0.62
28:DG:152:ARG:HD2	28:DG:153:PRO:HD3	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:92:MET:HA	31:DJ:92:MET:CE	2.30	0.62
34:DM:96:ILE:HD13	34:DM:102:LEU:HD11	1.81	0.62
39:DR:68:ARG:NH1	39:DR:90:ARG:HG2	2.14	0.62
49:D1:10:LEU:HD22	49:D1:10:LEU:H	1.64	0.62
52:D4:7:VAL:HG22	52:D4:25:VAL:HG21	1.81	0.62
1:AA:22:G:H1'	1:AA:914:A:N6	2.14	0.62
1:AA:517:G:O2'	1:AA:530:G:H4'	2.00	0.62
1:AA:601:G:H2'	1:AA:602:A:H8	1.65	0.62
1:AA:853:C:H2'	1:AA:854:U:H5'	1.81	0.62
3:AC:119:ILE:CG2	3:AC:197:VAL:HG11	2.28	0.62
5:AE:100:GLU:HB3	5:AE:121:ASN:CA	2.29	0.62
7:AG:92:PRO:O	7:AG:93:VAL:HG13	1.99	0.62
13:AM:106:ARG:HA	13:AM:106:ARG:HH11	1.64	0.62
14:AN:92:ILE:HG21	14:AN:95:LEU:CD2	2.30	0.62
15:AO:68:TYR:O	15:AO:71:ARG:HG2	1.98	0.62
21:AU:33:ARG:NE	21:AU:34:ARG:HG3	2.15	0.62
22:BA:271:G:O2'	22:BA:272:A:C5'	2.47	0.62
22:BA:1541:C:O2'	22:BA:1542:U:H5'	2.00	0.62
22:BA:1607:C:N4	22:BA:1622:G:N7	2.47	0.62
25:BD:107:VAL:O	25:BD:174:SER:O	2.17	0.62
27:BF:102:LEU:C	27:BF:102:LEU:HD13	2.24	0.62
32:BK:10:VAL:HB	32:BK:16:ALA:HB1	1.79	0.62
32:BK:99:ILE:HG23	32:BK:100:PHE:N	2.15	0.62
34:BM:68:PHE:C	34:BM:68:PHE:CD2	2.78	0.62
38:BQ:73:ILE:HD11	38:BQ:77:LYS:HB2	1.81	0.62
38:BQ:114:ALA:C	38:BQ:116:LEU:H	2.06	0.62
41:BT:40:LYS:HA	41:BT:43:ILE:HG23	1.80	0.62
53:CA:926:G:H3'	53:CA:1505:G:N2	2.13	0.62
53:CA:1090:U:H2'	53:CA:1091:U:C6	2.33	0.62
53:CA:1215:G:O2'	53:CA:1216:A:H8	1.82	0.62
4:CD:195:ASN:HB3	4:CD:197:HIS:NE2	2.15	0.62
54:CG:74:VAL:HG13	54:CG:140:VAL:CG1	2.19	0.62
10:CJ:6:ILE:HG23	10:CJ:100:ILE:HG23	1.81	0.62
11:CK:12:ARG:N	11:CK:12:ARG:HD3	2.14	0.62
11:CK:15:VAL:O	11:CK:16:SER:HB2	1.99	0.62
20:CT:14:GLU:HA	20:CT:17:ARG:HB2	1.80	0.62
20:CT:57:VAL:CG1	20:CT:71:ALA:CB	2.78	0.62
22:DA:14:A:N6	22:DA:526:A:C4	2.67	0.62
22:DA:324:A:C2	22:DA:325:G:H1'	2.34	0.62
22:DA:773:U:H5''	22:DA:774:G:OP2	2.00	0.62
22:DA:960:A:C2'	22:DA:962:G:H5'	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1681:G:H2'	22:DA:1762:A:N3	2.15	0.62
22:DA:2396:G:C2	22:DA:2421:G:C2	2.88	0.62
57:DB:109:A:O2'	57:DB:110:C:C6	2.53	0.62
24:DC:79:ARG:CG	24:DC:92:LEU:HB2	2.29	0.62
25:DD:51:THR:HG21	25:DD:75:ALA:O	2.00	0.62
29:DH:58:LEU:O	29:DH:61:VAL:HG12	1.98	0.62
31:DJ:44:TYR:HD1	38:DQ:63:ARG:NH2	1.98	0.62
31:DJ:44:TYR:O	31:DJ:45:THR:HB	1.98	0.62
31:DJ:64:VAL:HG22	31:DJ:68:LYS:HE2	1.80	0.62
39:DR:4:VAL:O	39:DR:38:VAL:HG23	1.99	0.62
39:DR:40:MET:O	39:DR:41:ILE:HD13	1.99	0.62
40:DS:31:GLN:O	40:DS:35:ILE:HG12	2.00	0.62
40:DS:49:LYS:HB3	40:DS:49:LYS:HZ3	1.64	0.62
45:DX:30:PRO:HG2	45:DX:32:LEU:HD21	1.79	0.62
1:AA:181:A:H1'	1:AA:182:A:N7	2.14	0.62
1:AA:688:G:H5''	1:AA:688:G:C8	2.34	0.62
1:AA:1062:U:H2'	1:AA:1063:C:C6	2.34	0.62
1:AA:1151:A:C4	1:AA:1152:A:N7	2.68	0.62
1:AA:1196:A:O2'	1:AA:1197:A:OP2	2.18	0.62
1:AA:1239:A:H1'	1:AA:1241:G:C5	2.35	0.62
1:AA:1450:U:H2'	1:AA:1452:C:C5	2.35	0.62
2:AB:22:TRP:CZ3	2:AB:24:PRO:HA	2.35	0.62
8:AH:10:LEU:O	8:AH:13:ILE:HB	2.00	0.62
12:AL:85:ARG:CZ	12:AL:87:LYS:HB3	2.29	0.62
16:AP:20:VAL:CG2	16:AP:32:PHE:HB2	2.29	0.62
22:BA:786:C:O2'	22:BA:787:C:H5'	2.00	0.62
22:BA:1688:U:O2	22:BA:1700:A:H5''	2.00	0.62
22:BA:1778:U:H2'	22:BA:1784:A:N6	2.15	0.62
22:BA:1794:A:H2'	22:BA:1795:C:C6	2.35	0.62
22:BA:1842:G:H2'	22:BA:1843:C:C6	2.35	0.62
22:BA:2136:G:C2'	22:BA:2137:U:H5	2.13	0.62
26:BE:141:MET:O	26:BE:142:ALA:HB3	1.99	0.62
31:BJ:45:THR:O	31:BJ:45:THR:HG23	1.99	0.62
32:BK:21:CYS:CA	32:BK:41:ILE:HD12	2.30	0.62
53:CA:249:U:H5'	53:CA:250:A:OP2	2.00	0.62
53:CA:423:G:H2'	53:CA:424:G:O4'	2.00	0.62
53:CA:542:G:H2'	53:CA:543:U:H6	1.65	0.62
53:CA:988:G:N2	53:CA:989:U:C2	2.68	0.62
53:CA:1036:A:C2'	53:CA:1037:C:H5'	2.30	0.62
53:CA:1454:G:O2'	53:CA:1455:G:C5'	2.47	0.62
4:CD:190:LEU:O	4:CD:190:LEU:HD23	1.99	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:74:LYS:HG3	11:CK:78:ILE:HD11	1.82	0.62
22:DA:8:C:O2'	22:DA:9:G:H5'	1.99	0.62
22:DA:284:U:H2'	22:DA:285:G:H8	1.65	0.62
22:DA:748:G:O6	22:DA:751:A:H5'	2.00	0.62
22:DA:845:A:N3	22:DA:847:U:H1'	2.14	0.62
22:DA:942:G:C2'	22:DA:943:A:H5'	2.30	0.62
22:DA:946:C:O2'	22:DA:947:A:C5'	2.48	0.62
22:DA:971:G:C2'	22:DA:972:A:H5'	2.30	0.62
22:DA:1208:C:N3	22:DA:1209:U:C5	2.68	0.62
22:DA:1531:C:H2'	22:DA:1532:A:O4'	2.00	0.62
22:DA:1550:C:O2'	22:DA:1551:A:H5'	1.99	0.62
22:DA:2150:C:O2'	22:DA:2151:U:O4'	2.11	0.62
26:DE:133:LEU:HD23	26:DE:133:LEU:C	2.24	0.62
58:DF:56:LEU:O	58:DF:60:SER:HB3	2.00	0.62
28:DG:87:GLN:HA	28:DG:129:GLU:HA	1.81	0.62
28:DG:120:ILE:CG1	28:DG:140:ILE:HG22	2.27	0.62
29:DH:27:ARG:HB2	29:DH:27:ARG:HH21	1.63	0.62
32:DK:64:ARG:HD2	32:DK:102:PRO:O	2.00	0.62
33:DL:26:GLY:O	33:DL:27:LEU:HD23	2.00	0.62
33:DL:111:ILE:HA	33:DL:128:THR:OG1	1.99	0.62
42:DU:58:VAL:HG12	42:DU:60:LYS:H	1.64	0.62
44:DW:77:LYS:O	44:DW:78:PHE:HB2	1.98	0.62
45:DX:11:PRO:CB	45:DX:27:ARG:HH21	2.13	0.62
1:AA:544:G:C5	1:AA:545:C:C5	2.88	0.62
1:AA:830:G:H2'	1:AA:831:A:H8	1.65	0.62
1:AA:853:C:O2'	1:AA:854:U:H5'	2.00	0.62
1:AA:1447:A:H5'	1:AA:1448:C:OP2	2.00	0.62
2:AB:40:ILE:HG21	2:AB:201:GLY:HA2	1.82	0.62
3:AC:96:VAL:HG23	3:AC:97:PRO:O	2.00	0.62
5:AE:79:THR:OG1	5:AE:80:LEU:N	2.32	0.62
8:AH:48:PHE:O	8:AH:49:LYS:CB	2.48	0.62
21:AU:33:ARG:HE	21:AU:34:ARG:HG3	1.65	0.62
22:BA:445:C:O2'	22:BA:446:G:H5'	2.00	0.62
22:BA:491:G:H2'	22:BA:492:A:H8	1.65	0.62
22:BA:574:A:H4'	22:BA:575:A:C5'	2.30	0.62
22:BA:1206:G:H2'	22:BA:1207:C:H6	1.64	0.62
22:BA:1276:A:H5''	22:BA:1276:A:H8	1.63	0.62
22:BA:1381:G:H2'	22:BA:1382:G:H5'	1.81	0.62
22:BA:2250:G:H8	22:BA:2250:G:O5'	1.82	0.62
22:BA:2259:U:O4'	22:BA:2427:C:H2'	2.00	0.62
22:BA:2311:A:H1'	27:BF:78:ILE:CD1	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2321:U:C3'	22:BA:2322:A:H5'	2.30	0.62
22:BA:2353:G:H1'	44:BW:30:VAL:HG13	1.82	0.62
23:BB:74:U:O2	43:BV:29:ILE:HD13	2.00	0.62
26:BE:149:ILE:O	26:BE:188:MET:HA	1.99	0.62
26:BE:151:GLY:HA2	26:BE:192:ALA:HB2	1.82	0.62
27:BF:47:LYS:HB3	27:BF:47:LYS:NZ	2.14	0.62
31:BJ:118:MET:HA	31:BJ:121:LYS:HE2	1.80	0.62
32:BK:99:ILE:CG2	32:BK:100:PHE:N	2.63	0.62
37:BP:50:ARG:CB	37:BP:57:ALA:N	2.53	0.62
41:BT:40:LYS:N	41:BT:43:ILE:HG23	2.14	0.62
53:CA:96:U:HO2'	53:CA:97:G:C5'	2.13	0.62
53:CA:987:G:C4	53:CA:988:G:C8	2.88	0.62
54:CG:137:ARG:NH1	54:CG:138:GLU:HG2	2.14	0.62
55:CM:85:TYR:HE2	55:CM:96:VAL:CG1	2.13	0.62
19:CS:20:LYS:HD3	19:CS:20:LYS:C	2.25	0.62
22:DA:156:A:H2'	22:DA:157:C:O4'	2.00	0.62
22:DA:259:G:C2'	22:DA:260:G:H5'	2.29	0.62
22:DA:405:U:H3'	22:DA:406:G:H5'	1.81	0.62
22:DA:411:G:C4'	22:DA:412:A:OP1	2.47	0.62
22:DA:475:C:O2'	22:DA:476:G:H5'	2.00	0.62
22:DA:479:A:H1'	22:DA:480:A:H5''	1.82	0.62
22:DA:532:A:H61	22:DA:2020:A:H1'	1.64	0.62
22:DA:991:C:C4	22:DA:1185:G:C6	2.88	0.62
22:DA:1280:G:C2'	22:DA:1281:G:H5'	2.28	0.62
22:DA:1499:C:H2'	22:DA:1500:G:H5'	1.82	0.62
22:DA:1554:U:C5'	22:DA:1555:G:OP2	2.48	0.62
22:DA:1555:G:H2'	22:DA:1556:C:C6	2.35	0.62
22:DA:1830:C:C4'	24:DC:14:HIS:HE1	2.13	0.62
22:DA:2015:A:C4	48:D0:2:VAL:HG11	2.35	0.62
22:DA:2837:A:N6	22:DA:2882:A:C6	2.68	0.62
24:DC:172:THR:HG22	24:DC:182:LYS:HZ2	1.64	0.62
31:DJ:105:VAL:HA	31:DJ:108:MET:HG3	1.82	0.62
39:DR:68:ARG:CZ	39:DR:90:ARG:HG2	2.29	0.62
40:DS:20:VAL:HG11	40:DS:43:ALA:CB	2.30	0.62
42:DU:42:LYS:HB2	42:DU:42:LYS:NZ	2.15	0.62
44:DW:22:VAL:O	44:DW:23:LYS:HG3	2.00	0.62
47:DZ:31:ILE:O	47:DZ:31:ILE:HG13	1.99	0.62
1:AA:126:G:H2'	1:AA:127:G:O5'	2.00	0.61
1:AA:174:A:H2'	1:AA:175:C:C6	2.35	0.61
1:AA:197:A:O2'	1:AA:198:G:C8	2.52	0.61
2:AB:40:ILE:HG21	2:AB:201:GLY:CA	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:AI:79:ARG:HD3	9:AI:102:PHE:CD1	2.34	0.61
11:AK:124:LYS:HZ3	21:AU:33:ARG:NH2	1.97	0.61
14:AN:40:ARG:HH12	14:AN:44:VAL:CG2	2.13	0.61
17:AQ:20:ILE:N	17:AQ:47:ASP:OD1	2.32	0.61
20:AT:53:MET:CE	20:AT:57:VAL:CG2	2.78	0.61
22:BA:869:G:C5	22:BA:870:U:C5	2.88	0.61
22:BA:1085:A:C3'	22:BA:1086:A:C2	2.81	0.61
22:BA:1157:G:N2	22:BA:1158:C:C2	2.67	0.61
22:BA:1735:A:H2'	22:BA:1736:U:C6	2.34	0.61
22:BA:2063:C:H5'	22:BA:2063:C:C6	2.30	0.61
22:BA:2280:G:C2	22:BA:2281:A:C8	2.88	0.61
22:BA:2820:A:C8	22:BA:2820:A:C3'	2.82	0.61
25:BD:107:VAL:CG2	25:BD:177:VAL:HG13	2.26	0.61
27:BF:134:GLN:NE2	27:BF:148:VAL:O	2.33	0.61
28:BG:84:LYS:HB2	28:BG:132:LEU:HG	1.82	0.61
33:BL:94:THR:HG22	33:BL:95:LEU:H	1.65	0.61
33:BL:110:VAL:HG12	33:BL:111:ILE:H	1.61	0.61
41:BT:34:VAL:O	41:BT:34:VAL:HG23	1.99	0.61
53:CA:515:G:N7	62:CA:1854:HOH:O	2.31	0.61
53:CA:825:A:H2'	53:CA:826:C:C6	2.33	0.61
53:CA:1031:C:H5'	53:CA:1032:G:H5''	1.81	0.61
53:CA:1350:A:C2	54:CG:33:GLY:HA3	2.35	0.61
3:CC:166:TRP:N	3:CC:166:TRP:CE3	2.68	0.61
14:CN:79:SER:HB2	14:CN:81:ILE:HD11	1.81	0.61
56:CP:2:VAL:HA	56:CP:22:ALA:O	2.00	0.61
22:DA:14:A:C6	22:DA:526:A:C2	2.88	0.61
22:DA:874:G:H5'	22:DA:875:G:OP2	1.99	0.61
22:DA:962:G:O2'	22:DA:963:U:H6	1.83	0.61
22:DA:1131:G:N7	22:DA:2025:C:H4'	2.14	0.61
22:DA:1565:C:H3'	24:DC:17:LYS:HE2	1.82	0.61
22:DA:1655:A:O2'	22:DA:1656:C:H5'	2.00	0.61
22:DA:2215:C:O2'	22:DA:2216:G:H8	1.82	0.61
22:DA:2232:C:P	45:DX:26:ARG:NH1	2.72	0.61
22:DA:2328:A:H2'	22:DA:2329:U:C6	2.34	0.61
22:DA:2447:G:N7	22:DA:2500:U:H2'	2.15	0.61
22:DA:2810:A:H2'	22:DA:2811:G:O4'	2.00	0.61
22:DA:2836:U:O2'	22:DA:2837:A:O5'	2.17	0.61
24:DC:244:VAL:HG12	24:DC:250:GLN:HA	1.82	0.61
29:DH:136:SER:C	29:DH:137:GLU:HG3	2.25	0.61
35:DN:51:LEU:HA	35:DN:54:LEU:CD2	2.30	0.61
35:DN:75:ILE:CD1	35:DN:79:LEU:HD12	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:68:ARG:HD2	39:DR:92:TRP:CZ3	2.35	0.61
40:DS:4:ILE:HG22	40:DS:106:VAL:HG13	1.82	0.61
47:DZ:6:ILE:CD1	47:DZ:47:ILE:HD11	2.30	0.61
1:AA:429:U:H4'	1:AA:430:A:O5'	1.98	0.61
1:AA:677:U:H3	1:AA:713:G:H22	1.48	0.61
1:AA:751:U:H4'	15:AO:23:SER:HA	1.81	0.61
1:AA:872:A:C8	1:AA:874:G:C8	2.88	0.61
1:AA:1143:G:H2'	1:AA:1144:G:C8	2.33	0.61
2:AB:66:ILE:CB	2:AB:88:GLN:HB3	2.21	0.61
4:AD:151:GLN:H	4:AD:154:VAL:HG13	1.65	0.61
5:AE:103:GLY:HA2	5:AE:121:ASN:HA	1.81	0.61
22:BA:396:G:H1'	45:BX:28:PHE:HB3	1.81	0.61
22:BA:1277:G:C5'	35:BN:20:MET:CE	2.79	0.61
22:BA:1364:G:OP2	45:BX:1:SER:N	2.33	0.61
22:BA:1815:A:C1'	22:BA:1817:G:C8	2.83	0.61
22:BA:2816:G:C2'	22:BA:2817:U:H5'	2.30	0.61
26:BE:154:ASP:OD2	26:BE:157:LEU:HB3	1.99	0.61
27:BF:129:MET:HG3	27:BF:153:ILE:HD11	1.77	0.61
31:BJ:140:LEU:HD13	31:BJ:140:LEU:C	2.24	0.61
38:BQ:13:HIS:HD2	38:BQ:31:TYR:CE1	2.18	0.61
53:CA:517:G:H5'	53:CA:519:C:C2	2.35	0.61
53:CA:1448:C:O2'	53:CA:1449:C:C6	2.52	0.61
11:CK:21:HIS:O	11:CK:22:ILE:HD12	2.00	0.61
55:CM:3:ILE:O	55:CM:4:ALA:HB2	1.98	0.61
20:CT:11:ILE:C	20:CT:13:SER:H	2.06	0.61
20:CT:69:ASN:O	20:CT:72:ALA:HB3	1.99	0.61
21:CU:33:ARG:CZ	21:CU:34:ARG:HD3	2.30	0.61
21:CU:38:GLU:N	21:CU:40:PRO:HD2	2.14	0.61
22:DA:126:A:H2'	50:D2:46:LYS:CE	2.30	0.61
22:DA:173:A:H2'	22:DA:174:U:H6	1.63	0.61
22:DA:338:G:H2'	22:DA:339:U:C5'	2.28	0.61
22:DA:471:A:H5''	26:DE:79:ARG:HH12	1.65	0.61
22:DA:828:U:H4'	22:DA:831:G:N1	2.14	0.61
22:DA:1304:A:HO2'	22:DA:1305:C:H6	1.42	0.61
22:DA:1904:G:H1'	22:DA:1927:A:N1	2.16	0.61
22:DA:2093:G:N2	22:DA:2094:A:C5	2.66	0.61
22:DA:2099:U:O2	22:DA:2099:U:H2'	2.00	0.61
22:DA:2312:U:H2'	22:DA:2313:C:C6	2.35	0.61
22:DA:2674:G:H2'	22:DA:2675:A:H8	1.65	0.61
22:DA:2898:U:H2'	22:DA:2899:A:H8	1.64	0.61
24:DC:62:ARG:N	24:DC:62:ARG:HD2	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:10:GLY:O	25:DD:11:MET:CB	2.48	0.61
25:DD:177:VAL:HG12	25:DD:189:VAL:HG13	1.82	0.61
34:DM:57:VAL:HA	34:DM:112:LEU:HD11	1.81	0.61
36:DO:15:ARG:HG2	36:DO:93:ASP:OD1	2.00	0.61
36:DO:62:LEU:CD1	36:DO:65:THR:HG23	2.29	0.61
37:DP:86:LYS:NZ	37:DP:86:LYS:CA	2.61	0.61
37:DP:102:ARG:CB	37:DP:107:ALA:HB2	2.30	0.61
38:DQ:57:ARG:O	38:DQ:61:ILE:HD13	2.00	0.61
40:DS:35:ILE:HG13	40:DS:36:LEU:HD22	1.82	0.61
1:AA:198:G:O2'	1:AA:199:A:C5'	2.49	0.61
1:AA:198:G:H22	1:AA:220:G:H1'	1.64	0.61
1:AA:953:G:C2	1:AA:954:G:H1'	2.35	0.61
1:AA:983:A:O2'	1:AA:984:C:H5'	2.01	0.61
4:AD:147:LYS:O	4:AD:149:LYS:HB2	2.00	0.61
4:AD:158:LEU:O	4:AD:161:ALA:HB3	2.00	0.61
9:AI:83:THR:HG21	9:AI:102:PHE:CB	2.28	0.61
10:AJ:53:ILE:HG22	10:AJ:61:ALA:CB	2.28	0.61
15:AO:50:HIS:O	15:AO:53:ARG:HB3	2.00	0.61
20:AT:43:LYS:NZ	20:AT:86:ALA:HA	2.15	0.61
22:BA:580:U:C2	22:BA:581:C:C5	2.89	0.61
22:BA:790:U:O2'	22:BA:791:C:O5'	2.18	0.61
22:BA:1266:G:H5''	40:BS:15:GLN:HE22	1.65	0.61
22:BA:1848:A:H2'	22:BA:1849:G:H8	1.64	0.61
22:BA:2202:U:H5''	22:BA:2203:U:OP1	2.00	0.61
28:BG:103:ASN:HD22	28:BG:113:ASP:CG	2.09	0.61
31:BJ:44:TYR:CD2	38:BQ:63:ARG:CG	2.81	0.61
41:BT:50:LEU:O	41:BT:51:PHE:HB2	2.01	0.61
51:B3:44:ARG:N	51:B3:45:PRO:HD2	2.15	0.61
53:CA:704:A:C2'	53:CA:705:G:H8	2.13	0.61
4:CD:186:GLU:O	4:CD:187:ARG:CB	2.47	0.61
6:CF:66:ALA:HB1	6:CF:70:VAL:CG2	2.31	0.61
8:CH:39:LEU:HB2	8:CH:45:ILE:HD11	1.82	0.61
9:CI:79:ARG:O	9:CI:83:THR:HG22	2.00	0.61
56:CP:4:ILE:N	56:CP:4:ILE:CD1	2.63	0.61
22:DA:19:A:C2	22:DA:522:A:C2	2.88	0.61
22:DA:303:G:H2'	22:DA:304:U:C5	2.36	0.61
22:DA:753:A:O2'	22:DA:754:U:H5'	2.01	0.61
22:DA:836:G:C6	22:DA:837:C:N3	2.67	0.61
22:DA:1205:A:N7	26:DE:165:HIS:CG	2.68	0.61
22:DA:1525:A:H2'	22:DA:1526:C:O4'	2.00	0.61
22:DA:1722:A:N6	22:DA:1739:A:C8	2.68	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2235:G:C5	22:DA:2236:U:C5	2.88	0.61
29:DH:77:THR:HG22	29:DH:143:ILE:HD11	1.82	0.61
31:DJ:123:LYS:N	31:DJ:123:LYS:HD2	2.15	0.61
32:DK:7:MET:HG3	32:DK:17:ARG:HH12	1.65	0.61
33:DL:120:VAL:HG12	33:DL:121:THR:N	2.13	0.61
36:DO:17:LYS:HE3	36:DO:17:LYS:C	2.25	0.61
40:DS:47:VAL:O	40:DS:50:VAL:HB	1.99	0.61
41:DT:8:LEU:HD22	41:DT:46:ALA:HA	1.82	0.61
46:DY:4:LYS:HB2	46:DY:4:LYS:NZ	2.14	0.61
48:D0:37:HIS:CG	48:D0:43:THR:HG22	2.35	0.61
1:AA:263:A:H2'	1:AA:264:C:C6	2.34	0.61
1:AA:507:C:OP2	1:AA:508:U:H3'	1.99	0.61
1:AA:597:G:O2'	1:AA:598:U:H5'	2.01	0.61
1:AA:662:U:H2'	1:AA:663:A:H8	1.63	0.61
1:AA:1240:U:H3	7:AG:29:LEU:CD2	2.12	0.61
10:AJ:14:ASP:HB3	10:AJ:17:LEU:CB	2.30	0.61
10:AJ:51:VAL:HB	14:AN:80:ARG:CB	2.29	0.61
15:AO:77:TYR:OH	15:AO:87:ARG:HG2	2.00	0.61
21:AU:8:ASN:O	21:AU:11:PHE:HE2	1.82	0.61
21:AU:48:LYS:HA	21:AU:51:ALA:HB3	1.81	0.61
22:BA:634:C:H6	22:BA:634:C:O5'	1.83	0.61
22:BA:959:A:H62	34:BM:82:MET:HE3	1.63	0.61
53:CA:151:A:H2'	53:CA:152:A:O4'	2.00	0.61
53:CA:375:U:OP1	56:CP:70:ARG:HD3	2.01	0.61
53:CA:501:C:H2'	53:CA:502:A:C8	2.35	0.61
9:CI:27:ILE:HD13	9:CI:62:LEU:CB	2.28	0.61
12:CL:50:LYS:HD2	12:CL:50:LYS:N	2.13	0.61
22:DA:104:A:O2'	22:DA:105:C:C5'	2.48	0.61
22:DA:117:G:C2	22:DA:119:A:N6	2.68	0.61
22:DA:224:U:H5	22:DA:420:C:H4'	1.65	0.61
22:DA:604:G:O2'	22:DA:605:G:H8	1.83	0.61
22:DA:1021:A:O2'	22:DA:1022:G:C4'	2.37	0.61
22:DA:1171:G:N2	22:DA:1179:G:H1'	2.16	0.61
22:DA:1388:G:O2'	22:DA:1389:G:C5'	2.47	0.61
22:DA:1965:C:C5'	22:DA:1965:C:H6	2.13	0.61
22:DA:2141:G:H2'	22:DA:2142:A:C8	2.35	0.61
22:DA:2674:G:H4'	32:DK:30:ARG:HG2	1.82	0.61
24:DC:82:TYR:O	24:DC:84:PRO:HD3	2.00	0.61
24:DC:106:PRO:HB3	24:DC:141:HIS:HE1	1.65	0.61
58:DF:39:VAL:CA	58:DF:49:LEU:HG	2.29	0.61
58:DF:177:ARG:NH1	58:DF:178:LYS:HB3	2.16	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:24:THR:C	28:DG:25:ILE:HD12	2.25	0.61
30:DI:12:VAL:HG12	30:DI:13:ALA:N	2.15	0.61
32:DK:38:ILE:CG1	32:DK:61:VAL:HG12	2.22	0.61
44:DW:8:SER:O	44:DW:9:THR:CB	2.47	0.61
1:AA:15:G:H4'	5:AE:28:ARG:NH1	2.16	0.61
1:AA:214:C:H2'	1:AA:215:C:C6	2.36	0.61
1:AA:252:U:H6	1:AA:252:U:H5''	1.63	0.61
1:AA:687:A:C8	1:AA:701:U:H5	2.18	0.61
1:AA:1395:C:C6	1:AA:1395:C:C5'	2.79	0.61
8:AH:105:THR:CG2	8:AH:120:LEU:HD13	2.27	0.61
22:BA:475:C:C5'	22:BA:475:C:C6	2.84	0.61
22:BA:535:G:O2'	22:BA:536:G:H5'	2.01	0.61
22:BA:1068:G:H2'	22:BA:1069:A:H5'	1.82	0.61
22:BA:1309:G:OP1	50:B2:9:VAL:HG13	2.01	0.61
22:BA:2405:G:H1'	22:BA:2412:A:H61	1.64	0.61
22:BA:2582:G:N3	22:BA:2582:G:H2'	2.16	0.61
22:BA:2840:C:H2'	22:BA:2841:C:H6	1.64	0.61
29:BH:43:ASN:N	29:BH:43:ASN:HD22	1.98	0.61
32:BK:16:ALA:O	32:BK:17:ARG:HB2	1.99	0.61
33:BL:77:ILE:O	33:BL:110:VAL:O	2.18	0.61
39:BR:64:VAL:O	39:BR:65:ALA:HB3	2.01	0.61
41:BT:73:ARG:HB3	41:BT:73:ARG:NH2	2.15	0.61
44:BW:39:GLN:C	44:BW:41:GLY:N	2.54	0.61
47:BZ:9:THR:HG23	47:BZ:10:ARG:HB2	1.83	0.61
48:B0:52:LYS:O	48:B0:52:LYS:HG3	1.99	0.61
53:CA:47:C:H4'	53:CA:48:C:O5'	2.00	0.61
53:CA:168:G:H2'	53:CA:169:C:H5'	1.82	0.61
53:CA:484:G:C4'	53:CA:485:U:O5'	2.48	0.61
53:CA:577:G:C6	53:CA:812:G:N2	2.68	0.61
53:CA:861:G:C5	53:CA:862:C:C5	2.89	0.61
53:CA:968:A:C4	53:CA:1062:U:H4'	2.36	0.61
53:CA:1190:G:HO2'	53:CA:1191:A:P	2.23	0.61
2:CB:81:ASP:CG	2:CB:82:ALA:H	2.08	0.61
4:CD:60:VAL:HG22	4:CD:194:ILE:CG2	2.30	0.61
6:CF:9:MET:HE1	18:CR:64:LEU:C	2.25	0.61
54:CG:41:ILE:CG2	54:CG:115:MET:HE3	2.31	0.61
9:CI:26:LYS:O	9:CI:62:LEU:HB2	1.99	0.61
11:CK:55:ARG:HD2	11:CK:55:ARG:N	2.15	0.61
11:CK:123:PRO:HB2	11:CK:125:LYS:HG3	1.81	0.61
17:CQ:29:LYS:CE	17:CQ:36:PHE:CE2	2.84	0.61
19:CS:38:THR:OG1	19:CS:67:GLY:HA2	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:125:A:C5'	50:D2:19:ARG:HD3	2.30	0.61
22:DA:447:A:H5'	22:DA:449:A:C8	2.34	0.61
22:DA:671:C:O2'	22:DA:672:C:C5'	2.49	0.61
22:DA:992:C:H4'	39:DR:74:ILE:HD13	1.83	0.61
22:DA:1051:G:H5'	22:DA:2752:C:H1'	1.83	0.61
22:DA:1069:A:N6	22:DA:1073:A:C5'	2.62	0.61
22:DA:1156:A:OP1	22:DA:1156:A:H8	1.82	0.61
22:DA:1839:G:O2'	22:DA:1840:G:C5'	2.48	0.61
22:DA:2636:C:H4'	25:DD:81:GLU:OE1	2.00	0.61
24:DC:79:ARG:HG3	24:DC:92:LEU:HB2	1.82	0.61
25:DD:33:ARG:HD2	25:DD:33:ARG:H	1.64	0.61
58:DF:36:ASN:O	58:DF:37:MET:HB3	2.01	0.61
58:DF:134:GLN:HB2	58:DF:137:PHE:HE2	1.64	0.61
28:DG:175:LYS:HD3	28:DG:175:LYS:O	2.01	0.61
29:DH:26:ALA:HA	29:DH:30:LEU:HB2	1.82	0.61
1:AA:92:U:O2'	1:AA:93:U:H6	1.83	0.61
1:AA:139:A:C2'	1:AA:140:U:H5'	2.30	0.61
1:AA:198:G:C4	1:AA:199:A:N7	2.67	0.61
1:AA:428:G:O4'	1:AA:430:A:C8	2.53	0.61
1:AA:1159:U:N3	1:AA:1182:G:C5	2.69	0.61
3:AC:6:PRO:O	3:AC:10:ARG:HG2	2.00	0.61
4:AD:145:ARG:HH11	4:AD:147:LYS:CE	2.11	0.61
5:AE:158:LYS:HE2	8:AH:63:LYS:NZ	2.16	0.61
7:AG:136:LYS:O	7:AG:140:VAL:HG23	2.00	0.61
11:AK:22:ILE:O	11:AK:22:ILE:HG13	1.99	0.61
12:AL:29:LYS:O	12:AL:81:ILE:HG22	2.01	0.61
14:AN:56:PRO:HA	14:AN:59:GLN:HE22	1.63	0.61
21:AU:45:LYS:HA	21:AU:45:LYS:HE3	1.82	0.61
22:BA:143:C:HO2'	22:BA:144:A:H8	1.48	0.61
22:BA:1059:G:C6	22:BA:1060:U:N3	2.68	0.61
22:BA:1474:U:C2'	22:BA:1475:G:H5'	2.30	0.61
22:BA:1916:A:H8	22:BA:1916:A:O5'	1.82	0.61
26:BE:134:LEU:HD12	26:BE:134:LEU:O	2.00	0.61
29:BH:78:VAL:HG11	29:BH:145:ASN:CB	2.30	0.61
32:BK:108:ARG:HH21	37:BP:34:GLY:HA3	1.66	0.61
34:BM:33:LEU:CD2	34:BM:128:THR:HB	2.30	0.61
44:BW:23:LYS:CD	44:BW:24:ARG:N	2.63	0.61
53:CA:986:U:O2'	53:CA:987:G:H5'	2.01	0.61
53:CA:992:U:H1'	53:CA:993:G:C2	2.36	0.61
53:CA:1406:U:H2'	53:CA:1407:C:H5'	1.82	0.61
2:CB:27:LYS:N	2:CB:28:PRO:CD	2.63	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:181:ILE:HG12	3:CC:202:PHE:CB	2.30	0.61
4:CD:58:GLN:OE1	4:CD:58:GLN:HA	2.00	0.61
55:CM:82:LEU:HD21	19:CS:60:PHE:HB3	1.81	0.61
19:CS:50:VAL:HG11	19:CS:70:LEU:HB3	1.81	0.61
22:DA:17:G:H4'	38:DQ:24:TYR:HE1	1.66	0.61
22:DA:192:C:OP1	62:DA:3722:HOH:O	2.16	0.61
22:DA:513:A:C2	22:DA:514:A:C5	2.89	0.61
22:DA:826:U:H5'	22:DA:2428:G:O2'	2.01	0.61
22:DA:1039:A:C4	22:DA:1040:A:C8	2.88	0.61
22:DA:1223:G:N2	22:DA:1226:A:OP2	2.29	0.61
22:DA:1361:G:C5	22:DA:1362:C:C5	2.88	0.61
22:DA:1698:A:H4'	22:DA:1699:G:O5'	1.99	0.61
22:DA:1744:A:H3'	22:DA:1745:A:H8	1.65	0.61
22:DA:2187:U:O2'	22:DA:2188:U:H5'	2.01	0.61
22:DA:2226:C:H2'	22:DA:2227:A:C8	2.35	0.61
22:DA:2847:U:H3'	37:DP:94:ALA:HB2	1.81	0.61
57:DB:116:G:H2'	57:DB:117:G:H8	1.66	0.61
25:DD:118:PHE:O	25:DD:119:ALA:HB3	1.98	0.61
58:DF:1:ALA:HB3	58:DF:93:GLU:OE2	2.00	0.61
29:DH:93:SER:HB3	29:DH:121:VAL:CG2	2.24	0.61
32:DK:99:ILE:HD12	32:DK:118:LEU:HB2	1.82	0.61
39:DR:51:VAL:HB	39:DR:52:PRO:HD2	1.83	0.61
44:DW:37:VAL:HG23	44:DW:38:ARG:NH1	2.15	0.61
1:AA:1111:A:C2'	1:AA:1112:C:H5'	2.29	0.61
1:AA:1141:C:O2'	1:AA:1142:G:O5'	2.16	0.61
1:AA:1257:A:H4'	1:AA:1258:G:OP2	2.01	0.61
2:AB:108:GLN:O	2:AB:110:ILE:C	2.44	0.61
7:AG:112:ASP:HB2	7:AG:118:ARG:HG3	1.82	0.61
9:AI:93:LEU:HD12	9:AI:94:ARG:N	2.16	0.61
10:AJ:48:ARG:NH1	10:AJ:66:GLU:OE1	2.34	0.61
11:AK:113:THR:HB	21:AU:28:LEU:HD11	1.82	0.61
22:BA:320:A:H4'	22:BA:322:A:N7	2.14	0.61
22:BA:1070:A:C2	30:BI:9:LYS:CG	2.82	0.61
22:BA:2217:G:O2'	22:BA:2218:G:H5'	2.00	0.61
22:BA:2347:C:H2'	22:BA:2348:U:C6	2.36	0.61
22:BA:2857:G:N2	22:BA:2860:A:OP2	2.32	0.61
27:BF:35:LEU:CB	27:BF:153:ILE:HG22	2.17	0.61
27:BF:131:VAL:C	27:BF:132:ARG:HG3	2.24	0.61
29:BH:40:THR:O	29:BH:42:LYS:N	2.30	0.61
32:BK:91:SER:O	32:BK:92:GLU:C	2.43	0.61
35:BN:73:ASN:HA	35:BN:76:VAL:HG12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:40:LYS:O	41:BT:44:LYS:N	2.34	0.61
47:BZ:35:VAL:CG2	47:BZ:37:ARG:CZ	2.79	0.61
53:CA:91:U:C4	53:CA:92:U:C4	2.88	0.61
53:CA:119:A:H5'	53:CA:120:A:O5'	2.00	0.61
53:CA:132:C:O2'	53:CA:133:U:C5'	2.48	0.61
53:CA:234:C:O2'	53:CA:235:C:H5'	2.00	0.61
53:CA:255:G:H4'	17:CQ:18:LYS:HB2	1.82	0.61
53:CA:702:A:OP1	53:CA:702:A:H8	1.84	0.61
53:CA:752:G:H1'	53:CA:754:C:H41	1.62	0.61
53:CA:935:A:O2'	53:CA:936:C:C6	2.50	0.61
53:CA:1062:U:H2'	53:CA:1063:C:C6	2.36	0.61
53:CA:1363:A:C6	53:CA:1365:G:O6	2.53	0.61
20:CT:2:ASN:N	20:CT:7:LYS:NZ	2.45	0.61
22:DA:188:G:H2'	22:DA:189:G:H5'	1.82	0.61
22:DA:322:A:H3'	26:DE:163:ASN:HD21	1.65	0.61
22:DA:1281:G:C6	22:DA:1290:C:N4	2.67	0.61
22:DA:1300:G:H4'	22:DA:1301:A:O5'	1.99	0.61
22:DA:1808:A:H5''	22:DA:1809:A:N7	2.15	0.61
22:DA:1830:C:C5'	24:DC:14:HIS:HE1	2.13	0.61
22:DA:1956:U:H2'	22:DA:1957:C:H6	1.65	0.61
22:DA:2226:C:O2'	22:DA:2227:A:O4'	2.18	0.61
22:DA:2689:U:H5''	22:DA:2690:U:O5'	2.00	0.61
25:DD:36:GLN:HE21	25:DD:38:LYS:HZ1	1.49	0.61
36:DO:18:LEU:HD13	36:DO:25:ARG:CG	2.29	0.61
37:DP:74:GLN:OE1	37:DP:74:GLN:HA	1.99	0.61
37:DP:113:LEU:HD23	37:DP:113:LEU:C	2.24	0.61
1:AA:466:A:O2'	1:AA:467:U:H5	1.84	0.61
4:AD:61:ARG:HH21	4:AD:67:LEU:HA	1.66	0.61
4:AD:167:PRO:CB	4:AD:170:LEU:HD11	2.28	0.61
5:AE:85:LYS:HG3	5:AE:94:PHE:HB2	1.83	0.61
8:AH:9:MET:HE2	8:AH:32:LYS:CG	2.31	0.61
10:AJ:22:THR:HG22	10:AJ:23:ALA:N	2.16	0.61
13:AM:95:PRO:CG	13:AM:101:THR:HG22	2.31	0.61
21:AU:9:GLU:CB	21:AU:10:PRO:HD3	2.30	0.61
22:BA:202:U:H2'	22:BA:203:A:C8	2.34	0.61
22:BA:475:C:H5'	22:BA:475:C:C6	2.30	0.61
22:BA:531:C:C5	22:BA:2035:G:C2	2.89	0.61
22:BA:568:U:P	33:BL:36:LYS:HE3	2.40	0.61
22:BA:600:G:O4'	26:BE:100:MET:HE3	2.00	0.61
22:BA:1062:G:C8	22:BA:1088:A:H8	2.19	0.61
22:BA:1378:A:O2'	22:BA:1379:U:H3'	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1585:C:O5'	22:BA:1585:C:H6	1.83	0.61
22:BA:1779:U:C5	22:BA:1784:A:N7	2.61	0.61
22:BA:1818:U:H2'	24:BC:152:GLN:O	2.01	0.61
22:BA:1871:A:O2'	22:BA:1872:A:C8	2.53	0.61
22:BA:2065:C:H2'	22:BA:2066:C:H6	1.65	0.61
22:BA:2509:G:C3'	22:BA:2510:C:C5'	2.79	0.61
22:BA:2509:G:H2'	22:BA:2510:C:H5''	1.81	0.61
28:BG:18:ILE:HD11	28:BG:42:VAL:CG1	2.30	0.61
29:BH:100:ALA:O	29:BH:104:THR:HB	2.00	0.61
31:BJ:25:LEU:HB2	31:BJ:62:VAL:CG2	2.31	0.61
31:BJ:56:VAL:HG12	31:BJ:57:LEU:H	1.62	0.61
37:BP:105:LYS:CA	37:BP:108:ARG:HH21	2.12	0.61
38:BQ:63:ARG:NH2	38:BQ:96:ASP:CA	2.64	0.61
53:CA:313:A:H2'	53:CA:314:C:C6	2.35	0.61
53:CA:1157:A:C2	53:CA:1181:G:C8	2.89	0.61
53:CA:1336:C:H1'	53:CA:1337:G:C2	2.35	0.61
3:CC:100:ILE:HD12	3:CC:101:ASN:N	2.16	0.61
4:CD:25:ARG:HH12	4:CD:30:LYS:CG	2.03	0.61
8:CH:65:PHE:CE2	8:CH:66:GLN:HG2	2.35	0.61
12:CL:80:LEU:HB3	12:CL:97:VAL:HG22	1.82	0.61
22:DA:859:G:N2	22:DA:916:G:O2'	2.33	0.61
22:DA:1351:C:H4'	22:DA:1572:A:O4'	2.01	0.61
22:DA:1430:G:H2'	22:DA:1431:A:C8	2.35	0.61
22:DA:2069:G:O2'	22:DA:2070:A:H5'	2.01	0.61
25:DD:114:LYS:CD	25:DD:116:LYS:NZ	2.57	0.61
38:DQ:87:VAL:CG1	39:DR:52:PRO:HG3	2.29	0.61
44:DW:46:ALA:HA	44:DW:50:VAL:HG12	1.81	0.61
48:D0:42:ILE:HD11	48:D0:48:TYR:HB2	1.81	0.61
1:AA:914:A:C4	1:AA:915:A:C8	2.88	0.61
4:AD:166:LYS:HB3	4:AD:166:LYS:NZ	2.15	0.61
7:AG:144:ALA:C	7:AG:146:ALA:H	2.06	0.61
9:AI:28:VAL:HB	9:AI:63:TYR:CD2	2.32	0.61
17:AQ:12:VAL:HG13	17:AQ:16:MET:CE	2.28	0.61
22:BA:141:G:H1	41:BT:2:ILE:HG23	1.65	0.61
22:BA:170:U:H2'	22:BA:171:U:H6	1.65	0.61
22:BA:245:G:H2'	22:BA:246:C:H6	1.65	0.61
22:BA:346:A:H5'	22:BA:346:A:H8	1.66	0.61
22:BA:914:G:H5''	22:BA:914:G:H8	1.66	0.61
22:BA:1045:C:C4'	22:BA:1046:A:H5'	2.29	0.61
23:BB:33:G:HO2'	23:BB:34:A:H5'	1.65	0.61
25:BD:125:TRP:O	25:BD:126:ASN:HB2	2.00	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:18:ARG:HG2	32:BK:45:GLU:HG3	1.83	0.61
32:BK:63:VAL:HG11	32:BK:103:VAL:HG12	1.83	0.61
32:BK:98:ARG:HA	32:BK:118:LEU:HD23	1.83	0.61
35:BN:75:ILE:HD12	35:BN:79:LEU:HD12	1.81	0.61
44:BW:8:SER:O	44:BW:9:THR:CG2	2.48	0.61
53:CA:373:A:H5'	53:CA:373:A:H8	1.66	0.61
53:CA:618:C:H3'	53:CA:619:U:H5''	1.82	0.61
2:CB:93:HIS:CB	2:CB:145:ASN:O	2.47	0.61
2:CB:150:ILE:HD11	2:CB:153:MET:HE1	1.83	0.61
3:CC:70:ALA:HB2	3:CC:114:LEU:HD11	1.82	0.61
6:CF:88:MET:HE3	6:CF:90:MET:SD	2.41	0.61
8:CH:28:SER:HB2	8:CH:57:GLU:O	2.01	0.61
21:CU:36:PHE:HD1	21:CU:40:PRO:HB3	1.66	0.61
22:DA:104:A:O2'	22:DA:105:C:H5'	2.01	0.61
22:DA:340:A:H2'	22:DA:341:C:H5'	1.81	0.61
22:DA:739:A:O2'	22:DA:740:C:H5	1.84	0.61
22:DA:924:G:O2'	22:DA:925:A:H5'	2.01	0.61
22:DA:1038:G:C2'	22:DA:1039:A:H5'	2.30	0.61
22:DA:1196:C:H1'	22:DA:1226:A:C4	2.36	0.61
22:DA:1935:G:C1'	22:DA:1964:G:N2	2.56	0.61
22:DA:2310:C:H2'	22:DA:2311:A:C5'	2.30	0.61
22:DA:2665:A:H2'	22:DA:2666:C:O2	2.00	0.61
57:DB:15:A:C4	57:DB:109:A:C6	2.88	0.61
26:DE:128:ALA:O	26:DE:130:LYS:HG2	2.01	0.61
58:DF:90:LEU:O	58:DF:95:MET:HE3	2.00	0.61
58:DF:155:ILE:HD12	58:DF:155:ILE:N	2.16	0.61
31:DJ:35:ARG:NH1	31:DJ:140:LEU:HD11	2.16	0.61
31:DJ:44:TYR:HB2	38:DQ:63:ARG:NH1	2.15	0.61
33:DL:108:ALA:HB3	33:DL:125:LEU:HD22	1.83	0.61
36:DO:30:ARG:HH12	36:DO:102:ARG:HB2	1.66	0.61
40:DS:28:LYS:HA	40:DS:70:LYS:HA	1.82	0.61
47:DZ:46:MET:O	47:DZ:49:ALA:HB3	2.00	0.61
48:D0:5:ASN:HD22	48:D0:6:LYS:N	1.99	0.61
1:AA:439:U:O2'	1:AA:440:C:H5'	1.99	0.61
1:AA:569:C:H5''	1:AA:570:G:OP1	2.00	0.61
1:AA:779:C:O2'	1:AA:780:A:H5'	2.01	0.61
1:AA:1284:C:H6	1:AA:1284:C:O5'	1.84	0.61
9:AI:6:TYR:CG	9:AI:7:GLY:N	2.68	0.61
10:AJ:80:THR:HB	10:AJ:83:THR:CG2	2.27	0.61
22:BA:335:C:O5'	22:BA:335:C:H6	1.82	0.61
22:BA:497:A:H2'	22:BA:498:G:O4'	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:558:U:P	31:BJ:113:PRO:HB2	2.41	0.61
22:BA:1171:G:C6	22:BA:1172:C:C4	2.89	0.61
22:BA:1417:C:H2'	22:BA:1418:G:C8	2.35	0.61
22:BA:1479:G:C2'	22:BA:1480:C:H5'	2.31	0.61
22:BA:2480:C:C2'	22:BA:2481:G:H5'	2.30	0.61
23:BB:28:C:OP1	36:BO:31:THR:HG21	2.00	0.61
23:BB:57:A:H2'	23:BB:58:A:C8	2.35	0.61
28:BG:116:LEU:HB3	28:BG:120:ILE:CG2	2.31	0.61
40:BS:29:VAL:O	40:BS:33:LEU:HD22	2.01	0.61
41:BT:26:LYS:O	41:BT:27:SER:CB	2.48	0.61
49:B1:35:LEU:O	49:B1:35:LEU:HD23	2.01	0.61
53:CA:274:A:O2'	53:CA:275:G:H8	1.74	0.61
53:CA:1183:U:O2'	53:CA:1184:G:OP1	2.19	0.61
2:CB:74:ALA:HB1	2:CB:206:ILE:CD1	2.27	0.61
3:CC:41:TYR:CE1	3:CC:89:VAL:HG12	2.36	0.61
5:CE:132:PRO:O	5:CE:134:ASN:N	2.34	0.61
54:CG:92:PRO:HA	54:CG:95:ARG:HB2	1.82	0.61
22:DA:231:A:O2'	22:DA:232:G:C5'	2.49	0.61
22:DA:545:U:C2	22:DA:547:A:H5''	2.36	0.61
22:DA:810:U:C4	33:DL:30:THR:HG22	2.35	0.61
22:DA:1084:A:H2'	22:DA:1085:A:H5'	1.81	0.61
22:DA:1272:A:C2	22:DA:1618:A:N3	2.68	0.61
22:DA:1498:C:O2'	22:DA:1499:C:H5'	2.00	0.61
22:DA:1655:A:H4'	25:DD:118:PHE:CE1	2.36	0.61
22:DA:2332:C:O2'	44:DW:40:ARG:NH2	2.34	0.61
22:DA:2346:A:H3'	22:DA:2347:C:C5'	2.26	0.61
58:DF:28:PRO:CB	58:DF:168:LEU:HD21	2.31	0.61
58:DF:137:PHE:CB	58:DF:138:PRO:HD2	2.20	0.61
31:DJ:18:VAL:HG13	31:DJ:56:VAL:HA	1.83	0.61
33:DL:65:GLY:O	33:DL:66:PHE:HB2	2.01	0.61
44:DW:45:HIS:O	44:DW:46:ALA:HB2	2.01	0.61
46:DY:31:GLN:C	46:DY:33:ALA:H	2.07	0.61
47:DZ:40:THR:N	47:DZ:43:ILE:HD11	2.16	0.61
50:D2:31:LEU:HA	50:D2:34:ARG:CB	2.27	0.61
51:D3:51:LYS:O	51:D3:54:LEU:HB3	2.01	0.61
1:AA:15:G:C4'	5:AE:28:ARG:NH1	2.64	0.60
1:AA:208:U:H3	1:AA:212:G:N2	1.99	0.60
1:AA:603:U:H2'	1:AA:604:G:H8	1.66	0.60
2:AB:163:ILE:O	2:AB:185:ILE:HG12	2.00	0.60
4:AD:33:ILE:O	4:AD:34:GLU:CB	2.48	0.60
5:AE:152:VAL:HB	5:AE:155:LYS:NZ	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:14:ASP:OD1	7:AG:17:PHE:HB2	2.01	0.60
11:AK:109:ILE:HG22	11:AK:110:THR:N	2.16	0.60
22:BA:301:G:OP2	42:BU:81:ARG:NH1	2.34	0.60
22:BA:817:C:O2'	22:BA:818:G:H5'	2.01	0.60
22:BA:1138:G:C2	31:BJ:108:MET:HE2	2.35	0.60
22:BA:1199:U:H2'	22:BA:1200:C:H6	1.64	0.60
22:BA:1278:C:H2'	22:BA:1279:G:H8	1.65	0.60
22:BA:1330:C:O2'	22:BA:1331:G:C5'	2.49	0.60
22:BA:1428:C:C5	22:BA:1569:A:H5''	2.36	0.60
22:BA:1605:C:H2'	22:BA:1606:C:H5'	1.83	0.60
22:BA:1945:G:C4	22:BA:1946:U:C5	2.89	0.60
22:BA:2038:G:H2'	22:BA:2039:U:O4'	2.01	0.60
24:BC:77:VAL:HG23	24:BC:111:ALA:HA	1.83	0.60
24:BC:251:THR:CG2	24:BC:252:LYS:H	2.07	0.60
27:BF:168:LEU:HD12	27:BF:168:LEU:O	2.01	0.60
32:BK:43:ILE:HG21	32:BK:46:ALA:HB2	1.82	0.60
33:BL:4:ASN:H	33:BL:4:ASN:HD22	1.48	0.60
37:BP:4:ILE:HG22	37:BP:8:GLU:HG3	1.82	0.60
37:BP:67:GLU:OE1	37:BP:67:GLU:HA	2.00	0.60
37:BP:85:VAL:HG13	37:BP:86:LYS:H	1.66	0.60
42:BU:42:LYS:N	42:BU:42:LYS:HD3	2.15	0.60
44:BW:23:LYS:NZ	44:BW:24:ARG:HG3	2.16	0.60
47:BZ:24:LEU:C	47:BZ:24:LEU:CD2	2.73	0.60
53:CA:527:G:C2	53:CA:528:C:C6	2.89	0.60
53:CA:740:U:H4'	15:CO:38:LEU:HD11	1.83	0.60
53:CA:960:U:C4'	53:CA:961:U:H5''	2.30	0.60
53:CA:1071:C:H4'	5:CE:53:ARG:HH11	1.66	0.60
53:CA:1134:G:N1	53:CA:1141:C:C4	2.69	0.60
53:CA:1181:G:H2'	53:CA:1182:G:C8	2.36	0.60
4:CD:106:PHE:N	4:CD:106:PHE:CD1	2.67	0.60
10:CJ:38:GLY:O	10:CJ:40:ILE:HD12	2.01	0.60
12:CL:106:VAL:HB	12:CL:109:ARG:CG	2.31	0.60
19:CS:54:ARG:CG	19:CS:55:GLN:H	2.13	0.60
21:CU:39:LYS:H	21:CU:40:PRO:CD	2.08	0.60
22:DA:295:G:N2	22:DA:296:U:C6	2.69	0.60
22:DA:381:G:H5'	45:DX:15:ASN:HD22	1.66	0.60
22:DA:612:G:C2	22:DA:617:G:O6	2.54	0.60
22:DA:833:A:H2'	22:DA:834:G:C8	2.35	0.60
22:DA:1573:G:H2'	22:DA:1574:C:H5'	1.83	0.60
22:DA:1782:U:O2'	22:DA:1783:A:H5'	2.01	0.60
22:DA:1815:A:H1'	22:DA:1817:G:N7	2.16	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1823:G:H5''	62:DC:407:HOH:O	2.01	0.60
22:DA:2216:G:HO2'	22:DA:2217:G:H8	0.69	0.60
22:DA:2337:G:H2'	22:DA:2337:G:N3	2.15	0.60
22:DA:2408:U:H2'	22:DA:2409:G:H8	1.65	0.60
30:DI:16:MET:SD	30:DI:19:PRO:HG2	2.41	0.60
37:DP:91:VAL:HG11	37:DP:96:LEU:HD21	1.83	0.60
40:DS:2:GLU:HA	40:DS:2:GLU:OE2	2.00	0.60
42:DU:26:ASN:O	42:DU:34:ILE:HB	2.01	0.60
1:AA:1094:G:O2'	1:AA:1095:U:OP2	2.17	0.60
2:AB:60:ALA:CB	2:AB:223:GLY:HA3	2.31	0.60
2:AB:157:PRO:O	2:AB:180:ILE:HD12	2.00	0.60
5:AE:109:ALA:O	5:AE:110:MET:CG	2.49	0.60
6:AF:71:ILE:HG23	6:AF:72:ASP:N	2.17	0.60
10:AJ:53:ILE:CG1	14:AN:84:ARG:CZ	2.79	0.60
10:AJ:53:ILE:HG13	14:AN:84:ARG:CZ	2.31	0.60
17:AQ:29:LYS:HB2	17:AQ:36:PHE:CE1	2.35	0.60
22:BA:136:G:H2'	22:BA:137:U:C5	2.36	0.60
22:BA:638:G:H2'	22:BA:639:U:H6	1.62	0.60
22:BA:1073:A:P	22:BA:1073:A:H8	2.24	0.60
22:BA:1154:G:OP2	38:BQ:57:ARG:NH1	2.33	0.60
26:BE:149:ILE:HD11	26:BE:172:ALA:HA	1.82	0.60
41:BT:24:MET:HE2	41:BT:28:ASN:OD1	2.01	0.60
52:B4:3:VAL:O	52:B4:4:ARG:O	2.19	0.60
53:CA:629:A:H2'	53:CA:630:A:O4'	2.01	0.60
53:CA:1254:A:H2'	53:CA:1255:G:C8	2.35	0.60
53:CA:1513:A:H2'	53:CA:1514:G:C8	2.36	0.60
3:CC:166:TRP:N	3:CC:166:TRP:HE3	1.99	0.60
6:CF:43:GLY:O	6:CF:44:ARG:C	2.43	0.60
8:CH:103:VAL:CG1	8:CH:124:ILE:HA	2.21	0.60
22:DA:616:A:C2'	22:DA:617:G:C8	2.78	0.60
22:DA:982:C:H5''	22:DA:983:A:OP1	2.02	0.60
22:DA:1655:A:C5'	25:DD:118:PHE:CE1	2.85	0.60
22:DA:1915:U:C2'	22:DA:1916:A:C8	2.66	0.60
22:DA:2808:G:HO2'	22:DA:2809:A:H8	1.48	0.60
22:DA:2834:G:C1'	22:DA:2879:A:H61	2.14	0.60
25:DD:208:LYS:O	25:DD:209:ALA:HB2	2.00	0.60
26:DE:29:HIS:ND1	33:DL:6:LEU:HD22	2.17	0.60
36:DO:24:THR:HG22	36:DO:41:ALA:HA	1.82	0.60
40:DS:55:ILE:O	40:DS:59:GLU:HG2	2.01	0.60
42:DU:52:ASN:CG	42:DU:54:PRO:HD3	2.26	0.60
1:AA:251:G:H4'	1:AA:252:U:C5'	2.29	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:923:A:H2'	1:AA:924:C:H6	1.66	0.60
6:AF:93:LYS:O	6:AF:94:HIS:HB2	2.00	0.60
8:AH:21:LYS:HE2	8:AH:21:LYS:CA	2.31	0.60
9:AI:26:LYS:C	9:AI:27:ILE:HD12	2.26	0.60
10:AJ:8:ILE:HG12	10:AJ:100:ILE:HG22	1.83	0.60
18:AR:33:THR:HG22	18:AR:37:LYS:O	2.01	0.60
22:BA:2475:C:C2'	22:BA:2476:A:H5'	2.31	0.60
23:BB:19:C:O2'	23:BB:20:G:H5'	2.01	0.60
25:BD:136:ASN:HD21	25:BD:139:SER:HB2	1.66	0.60
33:BL:23:ILE:HG12	39:BR:82:HIS:CE1	2.37	0.60
37:BP:17:PRO:CG	37:BP:83:ILE:HG23	2.31	0.60
37:BP:30:TRP:CZ2	37:BP:39:LEU:HD11	2.36	0.60
50:B2:21:ARG:O	50:B2:27:GLY:HA3	2.02	0.60
53:CA:121:U:OP1	53:CA:121:U:H3'	2.01	0.60
53:CA:1148:U:H2'	53:CA:1149:C:O4'	2.01	0.60
53:CA:1190:G:H3'	3:CC:2:GLN:O	2.01	0.60
2:CB:19:THR:CG2	2:CB:37:VAL:HA	2.31	0.60
3:CC:109:GLU:CG	3:CC:139:ASN:HB2	2.25	0.60
4:CD:59:LYS:O	4:CD:63:ILE:HG13	2.02	0.60
9:CI:45:MET:O	9:CI:49:GLN:HG3	2.01	0.60
9:CI:114:LYS:HB2	9:CI:117:LEU:HD12	1.84	0.60
55:CM:18:LEU:HD12	55:CM:18:LEU:N	2.16	0.60
22:DA:27:G:N2	22:DA:512:G:H2'	2.16	0.60
22:DA:55:G:N2	22:DA:116:C:C2	2.68	0.60
22:DA:452:G:OP1	26:DE:53:THR:HG23	2.01	0.60
22:DA:656:G:O2'	22:DA:657:U:C5'	2.49	0.60
22:DA:739:A:H8	22:DA:739:A:OP2	1.84	0.60
22:DA:1420:A:C4	22:DA:2211:A:N7	2.69	0.60
22:DA:1655:A:H5'	25:DD:118:PHE:CD1	2.35	0.60
22:DA:1965:C:C3'	22:DA:1966:A:C5'	2.76	0.60
24:DC:62:ARG:HG2	24:DC:62:ARG:NH2	2.08	0.60
58:DF:48:LEU:O	58:DF:52:ALA:HB2	2.01	0.60
58:DF:155:ILE:HD12	58:DF:155:ILE:H	1.66	0.60
29:DH:68:ARG:CG	29:DH:71:LYS:HD3	2.31	0.60
31:DJ:127:GLY:O	31:DJ:129:GLU:HG3	2.00	0.60
32:DK:21:CYS:SG	32:DK:39:ILE:HG21	2.40	0.60
32:DK:88:ASN:CB	32:DK:91:SER:HB2	2.31	0.60
35:DN:35:LYS:NZ	35:DN:112:TYR:HE1	1.98	0.60
39:DR:90:ARG:O	39:DR:91:GLN:HB3	2.01	0.60
43:DV:75:GLN:HG3	43:DV:92:VAL:HG13	1.84	0.60
52:D4:3:VAL:O	52:D4:4:ARG:CB	2.48	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:266:G:OP2	1:AA:267:C:H5	1.85	0.60
1:AA:423:G:HO2'	1:AA:424:G:C4'	2.14	0.60
1:AA:1210:C:C2'	1:AA:1211:U:H5'	2.31	0.60
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.66	0.60
5:AE:81:GLN:NE2	5:AE:81:GLN:H	1.99	0.60
8:AH:85:TYR:CD2	8:AH:123:GLU:HB2	2.36	0.60
20:AT:8:LYS:HA	20:AT:11:ILE:HG23	1.81	0.60
22:BA:1046:A:H3'	22:BA:1047:G:H5'	1.83	0.60
22:BA:1179:G:C2	22:BA:1180:U:O2'	2.54	0.60
22:BA:2023:C:H6	22:BA:2023:C:H5''	1.65	0.60
23:BB:116:G:C4'	36:BO:54:VAL:HG22	2.25	0.60
25:BD:45:TYR:HD1	25:BD:45:TYR:N	1.90	0.60
28:BG:83:THR:C	28:BG:84:LYS:CD	2.75	0.60
33:BL:96:LYS:HD3	33:BL:103:ILE:HA	1.83	0.60
40:BS:29:VAL:CG1	40:BS:55:ILE:HD11	2.31	0.60
41:BT:31:VAL:CA	41:BT:32:LEU:HD23	2.31	0.60
53:CA:16:A:C2'	53:CA:17:U:H5'	2.31	0.60
53:CA:71:A:C2	53:CA:72:A:N7	2.70	0.60
53:CA:254:G:H5''	17:CQ:70:LYS:HD3	1.83	0.60
53:CA:436:C:C2'	53:CA:437:U:H5'	2.31	0.60
53:CA:1504:G:H3'	53:CA:1505:G:H5'	1.82	0.60
2:CB:95:TRP:CZ3	2:CB:171:ALA:HA	2.37	0.60
3:CC:38:VAL:O	3:CC:42:LEU:HD23	2.01	0.60
4:CD:187:ARG:HH21	4:CD:191:SER:HA	1.66	0.60
5:CE:44:ARG:HH22	5:CE:70:MET:HB2	1.66	0.60
22:DA:159:G:O2'	22:DA:160:A:H5''	2.00	0.60
22:DA:165:A:H2'	22:DA:166:U:H6	1.65	0.60
22:DA:727:A:C2'	22:DA:728:G:C8	2.84	0.60
22:DA:1055:G:H2'	22:DA:1055:G:N3	2.16	0.60
22:DA:1359:A:N1	22:DA:1360:G:H1'	2.17	0.60
22:DA:1387:A:O2'	22:DA:1388:G:H8	1.84	0.60
22:DA:1389:G:O2'	22:DA:1390:U:C5'	2.50	0.60
22:DA:1693:U:H4'	22:DA:1694:C:OP2	2.01	0.60
22:DA:1738:G:O2'	22:DA:1739:A:H8	1.82	0.60
22:DA:2091:C:N4	22:DA:2092:U:C4	2.69	0.60
22:DA:2230:G:H2'	22:DA:2231:U:C6	2.36	0.60
26:DE:44:ARG:H	26:DE:89:PRO:HA	1.66	0.60
28:DG:1:SER:C	28:DG:3:VAL:H	2.09	0.60
28:DG:8:VAL:HB	28:DG:49:LEU:HB3	1.83	0.60
32:DK:39:ILE:HD11	32:DK:62:VAL:CG2	2.29	0.60
35:DN:24:MET:HG2	35:DN:44:LEU:HD13	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:39:LEU:HB2	39:DR:49:ILE:HD13	1.84	0.60
40:DS:82:MET:HE2	40:DS:84:ARG:NH1	2.16	0.60
45:DX:63:ILE:HD12	45:DX:64:ASP:N	2.14	0.60
47:DZ:7:THR:O	47:DZ:54:VAL:HA	2.02	0.60
1:AA:73:C:O2'	1:AA:74:A:H5''	2.01	0.60
1:AA:154:U:O2'	1:AA:155:A:H5'	2.01	0.60
1:AA:731:G:OP1	1:AA:766:A:C1'	2.50	0.60
1:AA:1031:C:O2'	1:AA:1032:G:H5''	2.02	0.60
2:AB:139:GLU:O	2:AB:143:LEU:CD2	2.48	0.60
18:AR:35:SER:HA	18:AR:71:ASP:HB3	1.83	0.60
21:AU:24:LYS:O	21:AU:28:LEU:HB2	2.01	0.60
22:BA:71:A:H3'	22:BA:71:A:OP2	2.02	0.60
22:BA:1026:G:O2'	22:BA:1027:A:H5'	2.01	0.60
22:BA:1079:C:C4	22:BA:1088:A:C2	2.87	0.60
22:BA:1106:G:C2	22:BA:1107:G:C8	2.90	0.60
22:BA:1577:C:H2'	22:BA:1578:U:O4'	2.01	0.60
22:BA:1684:G:H2'	22:BA:1685:C:C6	2.36	0.60
22:BA:2211:A:OP2	22:BA:2211:A:C4'	2.48	0.60
22:BA:2507:C:C2'	22:BA:2508:G:H5''	2.31	0.60
25:BD:159:LYS:HA	25:BD:159:LYS:NZ	2.16	0.60
37:BP:45:VAL:HG12	37:BP:46:VAL:O	2.02	0.60
44:BW:17:ALA:HB1	44:BW:36:ILE:HA	1.84	0.60
53:CA:193:C:H1'	20:CT:54:GLN:HE21	1.66	0.60
53:CA:338:A:N1	53:CA:351:G:N2	2.48	0.60
53:CA:934:C:H4'	53:CA:935:A:OP1	2.00	0.60
2:CB:130:LYS:HD3	2:CB:133:ALA:HB3	1.83	0.60
3:CC:76:ILE:HA	3:CC:83:VAL:CG1	2.32	0.60
4:CD:93:LEU:O	4:CD:96:ARG:HG3	2.01	0.60
6:CF:2:ARG:HG2	6:CF:4:TYR:OH	2.00	0.60
10:CJ:39:PRO:HA	10:CJ:74:VAL:H	1.66	0.60
12:CL:120:ARG:HG2	12:CL:121:PRO:N	2.14	0.60
55:CM:82:LEU:HD12	55:CM:82:LEU:N	2.17	0.60
19:CS:52:ASN:HD22	19:CS:52:ASN:C	2.09	0.60
22:DA:55:G:C2	22:DA:116:C:C2	2.90	0.60
22:DA:243:U:O2'	22:DA:244:A:H5'	2.01	0.60
22:DA:455:C:N4	22:DA:472:A:H2'	2.16	0.60
22:DA:528:A:C2	22:DA:2043:C:H4'	2.36	0.60
22:DA:622:G:H2'	22:DA:623:C:C6	2.37	0.60
22:DA:644:A:O2'	22:DA:645:C:H5'	2.02	0.60
22:DA:729:G:C2'	22:DA:729:G:N3	2.64	0.60
22:DA:1402:U:H2'	22:DA:1403:A:O5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1475:G:N3	22:DA:1475:G:H2'	2.16	0.60
22:DA:1609:A:N6	22:DA:1616:A:C2	2.69	0.60
22:DA:2815:C:H2'	22:DA:2816:G:H8	1.64	0.60
24:DC:172:THR:HG22	24:DC:182:LYS:NZ	2.17	0.60
28:DG:44:HIS:HA	28:DG:49:LEU:HA	1.83	0.60
30:DI:11:GLN:OE1	30:DI:74:PRO:HG2	2.02	0.60
31:DJ:86:GLN:O	31:DJ:87:ALA:CB	2.49	0.60
33:DL:7:SER:HB2	33:DL:8:PRO:HD2	1.81	0.60
35:DN:72:ASP:O	35:DN:75:ILE:HG13	2.01	0.60
36:DO:88:LYS:O	36:DO:89:ASP:HB3	2.01	0.60
1:AA:198:G:O2'	1:AA:199:A:H5'	2.02	0.60
1:AA:596:A:H2'	1:AA:597:G:C8	2.36	0.60
1:AA:994:A:N7	1:AA:1216:A:H4'	2.16	0.60
1:AA:1342:C:O2'	1:AA:1343:G:H5'	2.02	0.60
1:AA:1365:G:H2'	1:AA:1366:C:C6	2.36	0.60
2:AB:132:GLU:O	2:AB:132:GLU:HG3	1.99	0.60
2:AB:163:ILE:CG2	2:AB:164:ASP:H	2.00	0.60
8:AH:77:VAL:HG11	8:AH:124:ILE:HD11	1.83	0.60
17:AQ:46:HIS:HB2	17:AQ:66:LEU:CD1	2.32	0.60
19:AS:28:LYS:HB3	19:AS:29:PRO:CD	2.24	0.60
22:BA:914:G:H5''	22:BA:914:G:C8	2.36	0.60
22:BA:1186:G:OP1	62:BA:3571:HOH:O	2.16	0.60
22:BA:1434:A:H2'	22:BA:1435:G:H8	1.66	0.60
22:BA:2225:A:H4'	22:BA:2226:C:C6	2.37	0.60
22:BA:2641:G:OP1	31:BJ:76:HIS:HE1	1.84	0.60
22:BA:2680:U:P	25:BD:114:LYS:HE2	2.42	0.60
22:BA:2849:U:H5'	22:BA:2867:G:N2	2.16	0.60
24:BC:252:LYS:HA	24:BC:252:LYS:HZ2	1.67	0.60
25:BD:11:MET:HE1	25:BD:192:ALA:HA	1.84	0.60
25:BD:174:SER:O	25:BD:175:LEU:CB	2.44	0.60
26:BE:23:PHE:CE2	26:BE:25:GLU:HB2	2.36	0.60
28:BG:86:LEU:HD12	28:BG:130:ILE:O	2.01	0.60
31:BJ:111:LYS:CE	31:BJ:115:GLY:H	2.14	0.60
32:BK:104:THR:HB	32:BK:106:GLU:OE1	2.00	0.60
37:BP:22:GLY:O	37:BP:109:ILE:HD11	2.02	0.60
41:BT:70:HIS:HB2	41:BT:73:ARG:O	2.02	0.60
53:CA:1097:C:H2'	53:CA:1098:C:C6	2.36	0.60
53:CA:1346:A:C8	53:CA:1348:U:C2	2.89	0.60
2:CB:35:ASN:O	2:CB:36:LYS:HD2	2.02	0.60
4:CD:137:SER:O	4:CD:140:ASP:HB2	2.02	0.60
6:CF:27:ALA:O	6:CF:31:GLY:HA3	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:41:ILE:HG21	54:CG:115:MET:HE2	1.81	0.60
20:CT:73:ARG:HG3	20:CT:73:ARG:NH1	2.12	0.60
22:DA:503:A:C4	22:DA:506:G:N7	2.69	0.60
22:DA:659:G:H5'	26:DE:95:LYS:HD2	1.83	0.60
22:DA:750:A:H5''	22:DA:751:A:OP2	2.01	0.60
22:DA:818:G:O2'	22:DA:819:A:H5''	2.00	0.60
22:DA:1142:A:H4'	31:DJ:27:ARG:HH22	1.66	0.60
22:DA:1205:A:H5''	22:DA:1206:G:N7	2.16	0.60
22:DA:1286:A:C4	22:DA:1289:C:N4	2.70	0.60
24:DC:15:VAL:CG2	24:DC:205:GLY:HA3	2.31	0.60
26:DE:46:GLN:HB3	26:DE:86:ALA:HB1	1.84	0.60
40:DS:6:LYS:NZ	40:DS:6:LYS:HB3	2.16	0.60
40:DS:7:HIS:ND1	40:DS:10:ALA:HB2	2.16	0.60
43:DV:44:HIS:CE1	43:DV:85:LYS:HD3	2.37	0.60
44:DW:36:ILE:HG22	44:DW:39:GLN:HB2	1.83	0.60
46:DY:22:LEU:CD1	46:DY:23:ARG:HH12	2.15	0.60
1:AA:96:U:HO2'	1:AA:97:G:H8	1.48	0.60
1:AA:291:U:O2'	1:AA:292:G:H5'	2.00	0.60
1:AA:721:G:C4'	1:AA:722:G:O5'	2.34	0.60
1:AA:1441:A:H62	1:AA:1461:G:N2	1.97	0.60
10:AJ:41:PRO:O	10:AJ:42:LEU:HB2	2.00	0.60
22:BA:1669:A:H2'	22:BA:1669:A:N3	2.16	0.60
37:BP:67:GLU:HG3	37:BP:68:GLY:H	1.67	0.60
37:BP:103:THR:HG23	37:BP:103:THR:O	2.01	0.60
39:BR:49:ILE:HG13	39:BR:51:VAL:O	2.02	0.60
53:CA:35:G:C6	53:CA:36:C:N4	2.69	0.60
53:CA:119:A:H5'	53:CA:120:A:H5'	1.82	0.60
53:CA:182:A:C5	53:CA:184:G:C8	2.89	0.60
53:CA:575:G:H4'	53:CA:576:C:C5'	2.30	0.60
53:CA:989:U:O4	53:CA:990:C:N4	2.34	0.60
53:CA:1070:U:H2'	53:CA:1071:C:H6	1.67	0.60
53:CA:1383:C:C2'	53:CA:1384:C:H5'	2.32	0.60
10:CJ:37:ARG:HG2	10:CJ:75:ASP:HB3	1.83	0.60
55:CM:64:VAL:CG1	55:CM:65:GLU:H	2.08	0.60
22:DA:86:G:C2	22:DA:87:U:C4	2.90	0.60
22:DA:740:C:O2'	22:DA:741:U:H5'	2.02	0.60
22:DA:856:G:O4'	44:DW:23:LYS:HB3	2.02	0.60
22:DA:976:G:N3	22:DA:977:G:C8	2.70	0.60
22:DA:1738:G:HO2'	22:DA:1739:A:H8	1.48	0.60
22:DA:2013:A:N6	22:DA:2014:A:C2	2.70	0.60
22:DA:2092:U:H4'	22:DA:2093:G:C5'	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2093:G:N3	22:DA:2094:A:N7	2.49	0.60
22:DA:2332:C:H4'	44:DW:40:ARG:NH1	2.17	0.60
22:DA:2619:C:H5'	25:DD:157:LYS:HA	1.83	0.60
22:DA:2672:U:H6	22:DA:2672:U:O5'	1.85	0.60
62:DA:3294:HOH:O	33:DL:99:ASN:HA	2.02	0.60
25:DD:79:LEU:HD22	25:DD:79:LEU:N	2.16	0.60
25:DD:129:THR:HG22	25:DD:130:GLN:O	2.02	0.60
25:DD:148:GLN:CG	25:DD:152:PRO:HG2	2.31	0.60
29:DH:125:THR:CG2	29:DH:146:VAL:HG11	2.30	0.60
33:DL:100:ILE:O	33:DL:101:ILE:CB	2.50	0.60
45:DX:58:ILE:HA	45:DX:66:VAL:HG21	1.84	0.60
1:AA:767:A:H2'	1:AA:768:A:O4'	2.02	0.60
2:AB:58:LYS:HZ1	2:AB:62:ARG:HG3	1.67	0.60
5:AE:152:VAL:C	5:AE:155:LYS:HZ2	2.09	0.60
22:BA:346:A:H5'	22:BA:346:A:C8	2.37	0.60
22:BA:536:G:H2'	22:BA:537:G:H5'	1.84	0.60
22:BA:1731:G:C2	22:BA:1733:G:C5	2.90	0.60
22:BA:2299:U:O2'	22:BA:2300:C:H5'	2.02	0.60
22:BA:2786:U:O2'	22:BA:2787:C:H5'	2.02	0.60
33:BL:85:VAL:HG21	33:BL:94:THR:HG23	1.83	0.60
39:BR:48:LYS:H	39:BR:48:LYS:HD2	1.67	0.60
45:BX:10:ARG:HB2	45:BX:11:PRO:CD	2.32	0.60
53:CA:818:G:C3'	53:CA:819:A:C5'	2.80	0.60
53:CA:1066:C:H2'	53:CA:1067:A:C8	2.36	0.60
53:CA:1440:U:OP2	53:CA:1440:U:H6	1.84	0.60
3:CC:104:GLU:HG2	3:CC:105:VAL:N	2.17	0.60
4:CD:151:GLN:HB3	4:CD:154:VAL:HG12	1.82	0.60
55:CM:11:HIS:N	55:CM:44:ILE:HD12	2.16	0.60
55:CM:106:ARG:HH21	55:CM:112:ARG:CZ	2.14	0.60
22:DA:206:U:O2'	22:DA:207:A:H8	1.84	0.60
22:DA:263:G:H4'	22:DA:430:A:O4'	2.01	0.60
22:DA:332:A:C5	22:DA:335:C:N4	2.70	0.60
22:DA:620:G:H4'	22:DA:621:A:O5'	2.02	0.60
22:DA:1019:U:O2'	22:DA:1021:A:N1	2.26	0.60
22:DA:1073:A:OP2	22:DA:1073:A:H4'	2.02	0.60
22:DA:1087:G:N2	22:DA:1103:A:H1'	2.16	0.60
22:DA:1510:G:H3'	22:DA:1510:G:OP2	2.00	0.60
22:DA:1608:A:O3'	22:DA:1609:A:H3'	2.02	0.60
22:DA:1649:G:C6	22:DA:2009:A:C6	2.89	0.60
22:DA:1734:G:HO2'	22:DA:1735:A:H8	1.40	0.60
22:DA:1775:U:H2'	22:DA:1776:G:O5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1967:C:H5''	22:DA:1967:C:C6	2.29	0.60
22:DA:1991:U:H2'	22:DA:1992:G:H5'	1.83	0.60
57:DB:54:G:H21	58:DF:25:MET:HE2	1.66	0.60
26:DE:153:LEU:HD12	26:DE:170:ARG:O	2.02	0.60
58:DF:8:LYS:HB2	58:DF:8:LYS:NZ	2.16	0.60
58:DF:177:ARG:CD	58:DF:178:LYS:N	2.60	0.60
28:DG:19:ASN:N	28:DG:19:ASN:HD22	1.98	0.60
30:DI:74:PRO:O	30:DI:78:LEU:HG	2.01	0.60
31:DJ:94:ALA:O	31:DJ:95:ARG:CB	2.50	0.60
31:DJ:103:ILE:C	31:DJ:103:ILE:HD12	2.27	0.60
33:DL:93:ASN:CG	33:DL:94:THR:H	2.08	0.60
33:DL:103:ILE:H	33:DL:103:ILE:CD1	2.13	0.60
33:DL:111:ILE:HD13	33:DL:111:ILE:N	2.16	0.60
36:DO:20:GLU:HG3	44:DW:50:VAL:HG11	1.84	0.60
42:DU:39:ASN:OD1	42:DU:64:ILE:HB	2.01	0.60
1:AA:433:G:O2'	1:AA:434:U:H5'	2.02	0.60
2:AB:58:LYS:HD3	2:AB:58:LYS:O	2.01	0.60
6:AF:52:ASN:O	6:AF:53:LYS:CB	2.50	0.60
12:AL:23:LEU:HB3	12:AL:58:ASN:HD22	1.65	0.60
19:AS:46:LEU:H	19:AS:61:VAL:HG23	1.67	0.60
20:AT:24:ARG:O	20:AT:28:ARG:HG2	2.01	0.60
22:BA:358:U:H2'	22:BA:359:G:O4'	2.02	0.60
22:BA:747:U:C4	22:BA:2613:U:C5	2.89	0.60
22:BA:866:A:C8	22:BA:914:G:C6	2.89	0.60
22:BA:2742:G:O2'	22:BA:2743:U:H5'	2.02	0.60
24:BC:165:ALA:HB3	24:BC:172:THR:CG2	2.32	0.60
25:BD:97:SER:HB3	25:BD:99:GLU:OE1	2.02	0.60
26:BE:28:VAL:O	26:BE:32:VAL:HG22	2.02	0.60
27:BF:37:MET:HE3	27:BF:151:LEU:HB3	1.83	0.60
33:BL:61:LEU:O	51:B3:12:ARG:HD3	2.02	0.60
40:BS:2:GLU:O	40:BS:107:VAL:O	2.18	0.60
41:BT:51:PHE:C	41:BT:52:GLU:HG2	2.27	0.60
42:BU:33:VAL:O	42:BU:64:ILE:HG22	2.00	0.60
50:B2:35:ARG:HG2	50:B2:42:LEU:HD11	1.84	0.60
53:CA:82:G:N7	53:CA:89:U:C4	2.69	0.60
53:CA:1345:U:H5''	53:CA:1346:A:OP1	2.02	0.60
53:CA:1481:U:H2'	53:CA:1482:G:C8	2.37	0.60
2:CB:10:LYS:HA	2:CB:10:LYS:HE3	1.84	0.60
3:CC:179:ALA:HB1	3:CC:202:PHE:CE1	2.36	0.60
55:CM:18:LEU:HA	55:CM:21:ILE:HD11	1.83	0.60
22:DA:185:G:H2'	22:DA:186:G:C8	2.36	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:453:A:H4'	22:DA:472:A:H62	1.66	0.60
22:DA:589:U:HO2'	22:DA:590:A:H5'	1.65	0.60
22:DA:637:A:N6	22:DA:652:U:H4'	2.17	0.60
22:DA:963:U:HO2'	22:DA:964:C:H6	1.50	0.60
22:DA:973:A:OP2	39:DR:81:LYS:HE3	2.02	0.60
22:DA:2212:A:C8	22:DA:2214:C:N4	2.70	0.60
22:DA:2425:A:H1'	22:DA:2427:C:C5	2.36	0.60
22:DA:2646:C:C6	22:DA:2646:C:C5'	2.78	0.60
22:DA:2815:C:H2'	22:DA:2816:G:C8	2.37	0.60
29:DH:94:ILE:HG13	29:DH:98:ASP:OD1	2.01	0.60
33:DL:21:ARG:CZ	33:DL:21:ARG:HB3	2.32	0.60
39:DR:43:ASN:ND2	39:DR:44:GLY:H	1.99	0.60
43:DV:4:ILE:HD11	43:DV:50:MET:CE	2.30	0.60
43:DV:9:ARG:HD3	43:DV:39:ALA:HB1	1.82	0.60
44:DW:18:LYS:HZ3	44:DW:18:LYS:HB2	1.66	0.60
48:D0:37:HIS:CB	48:D0:43:THR:HG22	2.31	0.60
1:AA:68:G:C5	1:AA:69:G:H1'	2.37	0.60
1:AA:1314:C:H5	19:AS:5:LYS:HD3	1.63	0.60
1:AA:1452:C:H4'	1:AA:1453:G:C4	2.37	0.60
4:AD:103:ARG:NH1	4:AD:110:ARG:HH12	1.99	0.60
9:AI:37:TYR:CD2	9:AI:38:PHE:HD2	2.20	0.60
22:BA:141:G:H5'	22:BA:142:A:N7	2.16	0.60
22:BA:434:U:HO2'	22:BA:436:C:H5	1.49	0.60
22:BA:2262:U:H4'	22:BA:2328:A:C2	2.37	0.60
25:BD:121:THR:HB	25:BD:127:PHE:CD1	2.37	0.60
25:BD:159:LYS:HZ2	25:BD:159:LYS:C	2.09	0.60
25:BD:169:ARG:C	25:BD:170:VAL:HG13	2.26	0.60
30:BI:10:LEU:HD13	30:BI:27:LEU:HA	1.84	0.60
31:BJ:64:VAL:O	31:BJ:65:THR:CB	2.50	0.60
34:BM:10:ARG:NH2	34:BM:89:VAL:HB	2.16	0.60
39:BR:49:ILE:HD12	39:BR:52:PRO:HA	0.83	0.60
40:BS:29:VAL:CG1	40:BS:55:ILE:CD1	2.80	0.60
40:BS:39:THR:HG22	40:BS:44:ALA:HB2	1.83	0.60
49:B1:16:THR:CG2	49:B1:41:VAL:CG2	2.80	0.60
53:CA:425:G:H2'	53:CA:426:U:O4'	2.02	0.60
53:CA:537:G:H2'	53:CA:538:G:H8	1.63	0.60
53:CA:1081:A:H5'	5:CE:22:LYS:HD2	1.84	0.60
53:CA:1104:G:H2'	53:CA:1105:A:O4'	2.01	0.60
53:CA:1399:C:O2	53:CA:1401:G:C5	2.54	0.60
6:CF:66:ALA:HB1	6:CF:70:VAL:HG23	1.82	0.60
10:CJ:44:THR:HG23	10:CJ:70:HIS:CE1	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:531:C:O5'	22:DA:532:A:H8	1.85	0.60
22:DA:565:C:H2'	22:DA:566:U:O4'	2.01	0.60
22:DA:927:A:H2'	22:DA:928:A:C8	2.37	0.60
22:DA:1040:A:C2	22:DA:1041:G:C4	2.90	0.60
22:DA:1053:C:N4	22:DA:1054:A:H62	2.00	0.60
22:DA:1338:G:H5''	41:DT:17:SER:HB3	1.83	0.60
22:DA:1635:A:C2'	22:DA:1636:U:H5'	2.31	0.60
22:DA:1809:A:C2	22:DA:1810:A:C5	2.90	0.60
22:DA:2235:G:C4	22:DA:2236:U:C5	2.90	0.60
22:DA:2492:U:O2'	22:DA:2493:U:C5'	2.50	0.60
22:DA:2694:G:H2'	22:DA:2695:U:H6	1.67	0.60
24:DC:44:ASN:C	24:DC:46:GLY:H	2.08	0.60
24:DC:52:HIS:NE2	24:DC:218:THR:HG23	2.17	0.60
58:DF:43:ILE:HG12	58:DF:77:LYS:CD	2.31	0.60
46:DY:2:LYS:CD	46:DY:4:LYS:HE3	2.30	0.60
52:D4:9:LYS:O	52:D4:9:LYS:HD3	2.02	0.60
1:AA:693:G:C2'	1:AA:694:A:H5'	2.32	0.59
1:AA:769:G:H4'	1:AA:1513:A:H4'	1.84	0.59
1:AA:914:A:C2'	1:AA:915:A:H8	2.15	0.59
1:AA:1064:G:H1'	1:AA:1066:C:C5	2.37	0.59
4:AD:147:LYS:HD3	4:AD:147:LYS:N	2.15	0.59
5:AE:153:ALA:O	5:AE:154:ALA:C	2.43	0.59
6:AF:86:ARG:NH2	18:AR:63:TYR:HB3	2.17	0.59
12:AL:79:ILE:HD12	12:AL:96:THR:CG2	2.32	0.59
17:AQ:13:SER:O	17:AQ:16:MET:CE	2.50	0.59
22:BA:372:G:C5'	45:BX:60:LYS:HE3	2.30	0.59
22:BA:532:A:HO2'	22:BA:2021:C:H5	1.50	0.59
22:BA:1381:G:C2'	22:BA:1382:G:H5'	2.32	0.59
22:BA:1434:A:H2'	22:BA:1435:G:C8	2.36	0.59
22:BA:1733:G:O2'	22:BA:1734:G:H8	1.72	0.59
22:BA:1827:U:H2'	22:BA:1828:G:O4'	2.01	0.59
22:BA:1936:A:C2	22:BA:1943:U:H5	2.20	0.59
22:BA:2094:A:H4'	29:BH:25:TYR:CE1	2.37	0.59
22:BA:2199:A:H3'	22:BA:2200:C:H6	1.66	0.59
22:BA:2881:U:O2'	22:BA:2882:A:H5'	2.02	0.59
23:BB:33:G:C2'	23:BB:34:A:H5'	2.32	0.59
34:BM:78:LEU:C	34:BM:80:VAL:H	2.10	0.59
37:BP:64:SER:O	37:BP:65:ASN:C	2.44	0.59
53:CA:82:G:C5	53:CA:89:U:C5	2.90	0.59
53:CA:1124:G:O2'	53:CA:1125:U:C5	2.54	0.59
53:CA:1228:C:O2'	53:CA:1229:A:H8	1.81	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1323:G:H2'	53:CA:1324:A:H8	1.65	0.59
53:CA:1356:G:H2'	53:CA:1357:A:C8	2.37	0.59
2:CB:19:THR:HG22	2:CB:37:VAL:HA	1.83	0.59
4:CD:148:ALA:O	4:CD:151:GLN:HB2	2.02	0.59
9:CI:118:ARG:HH21	9:CI:122:ARG:HE	1.49	0.59
9:CI:128:LYS:O	9:CI:129:ARG:HB2	2.01	0.59
10:CJ:50:THR:HB	10:CJ:64:GLN:OE1	2.02	0.59
20:CT:57:VAL:CG1	20:CT:71:ALA:HB2	2.32	0.59
22:DA:492:A:O2'	22:DA:493:G:H5'	2.02	0.59
22:DA:850:U:O2'	47:DZ:22:THR:HA	2.02	0.59
22:DA:1099:G:H5''	22:DA:1100:C:OP2	2.01	0.59
22:DA:1374:G:H2'	22:DA:1375:U:O4'	2.01	0.59
22:DA:2225:A:H5'	22:DA:2226:C:H5'	1.84	0.59
22:DA:2615:U:C2	48:D0:3:GLN:HA	2.37	0.59
22:DA:2650:U:C2	22:DA:2671:G:N2	2.70	0.59
22:DA:2902:C:H2'	22:DA:2903:U:O4'	2.00	0.59
25:DD:119:ALA:HB3	25:DD:163:GLY:N	2.15	0.59
29:DH:114:GLU:OE1	29:DH:132:PHE:HE1	1.85	0.59
31:DJ:64:VAL:HG13	31:DJ:65:THR:H	1.67	0.59
32:DK:27:GLY:HA3	32:DK:30:ARG:CD	2.31	0.59
34:DM:19:GLY:O	34:DM:20:LEU:HB2	2.01	0.59
35:DN:28:LEU:HD21	35:DN:115:LEU:CD2	2.11	0.59
38:DQ:15:LYS:HD2	38:DQ:19:GLN:HE21	1.66	0.59
40:DS:73:LYS:HB2	40:DS:106:VAL:HB	1.84	0.59
42:DU:7:ASP:O	42:DU:8:ASP:HB2	2.02	0.59
47:DZ:51:SER:HA	47:DZ:54:VAL:CG2	2.32	0.59
48:D0:38:LEU:HB2	48:D0:41:HIS:NE2	2.17	0.59
1:AA:322:C:O2'	20:AT:17:ARG:CG	2.50	0.59
1:AA:596:A:N6	1:AA:645:G:N1	2.50	0.59
1:AA:1458:G:H5''	20:AT:25:SER:HB3	1.83	0.59
4:AD:80:ARG:HH21	4:AD:81:LEU:CD2	2.15	0.59
5:AE:81:GLN:HG2	5:AE:149:PRO:CB	2.31	0.59
8:AH:10:LEU:HD11	8:AH:126:CYS:CB	2.32	0.59
12:AL:24:GLU:O	12:AL:25:ALA:C	2.43	0.59
13:AM:7:ASN:HD22	13:AM:8:ILE:N	1.99	0.59
14:AN:51:PRO:O	14:AN:52:ARG:HB2	2.02	0.59
22:BA:226:A:O2'	22:BA:227:A:H5'	2.01	0.59
22:BA:893:C:H2'	22:BA:894:U:O4'	2.02	0.59
22:BA:910:A:H2'	22:BA:911:A:C8	2.38	0.59
22:BA:920:A:C6	22:BA:921:C:C4	2.90	0.59
22:BA:1139:G:C2'	22:BA:1140:C:H5'	2.32	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1253:A:H4'	22:BA:1254:A:OP2	2.00	0.59
22:BA:1866:A:C6	22:BA:1876:A:N7	2.71	0.59
22:BA:2064:C:O2'	22:BA:2065:C:H5'	2.02	0.59
23:BB:37:C:C5	23:BB:38:C:C4	2.90	0.59
24:BC:265:PHE:H	24:BC:265:PHE:HD1	1.50	0.59
25:BD:114:LYS:HZ2	25:BD:116:LYS:HE2	1.66	0.59
25:BD:151:THR:CG2	25:BD:152:PRO:CD	2.71	0.59
33:BL:9:ALA:HB3	33:BL:12:SER:HB2	1.84	0.59
34:BM:132:THR:HG22	34:BM:133:LYS:N	2.17	0.59
37:BP:33:GLU:CG	37:BP:34:GLY:H	2.15	0.59
49:B1:39:ASP:OD1	49:B1:41:VAL:HG22	2.01	0.59
53:CA:89:U:O2'	53:CA:90:C:O4'	2.19	0.59
53:CA:276:G:O2'	53:CA:277:C:C6	2.52	0.59
53:CA:977:A:H8	53:CA:1223:C:C4	2.20	0.59
2:CB:59:ILE:HD12	2:CB:60:ALA:N	2.17	0.59
3:CC:129:PHE:CZ	3:CC:156:LEU:HB3	2.36	0.59
6:CF:18:VAL:CG2	6:CF:58:HIS:HD2	2.12	0.59
14:CN:46:LYS:HE3	19:CS:10:ILE:HB	1.83	0.59
21:CU:9:GLU:HB3	21:CU:10:PRO:CD	2.32	0.59
22:DA:105:C:H2'	22:DA:106:C:C6	2.36	0.59
22:DA:183:C:C2'	22:DA:184:C:H5'	2.31	0.59
22:DA:296:U:C2	22:DA:297:G:C8	2.90	0.59
22:DA:354:A:H2'	22:DA:355:U:O4'	2.01	0.59
22:DA:391:A:H2'	22:DA:392:U:C6	2.37	0.59
22:DA:593:U:H2'	22:DA:594:U:H6	1.64	0.59
22:DA:656:G:O2'	22:DA:657:U:O4'	2.15	0.59
22:DA:1345:C:C5'	22:DA:1396:U:O4	2.50	0.59
22:DA:1552:A:N3	22:DA:1552:A:C2'	2.65	0.59
22:DA:1657:U:P	25:DD:141:ARG:HG3	2.41	0.59
22:DA:2064:C:O2'	22:DA:2065:C:O4'	2.17	0.59
22:DA:2143:C:C5'	22:DA:2144:G:OP2	2.50	0.59
22:DA:2379:G:H2'	22:DA:2380:C:H6	1.67	0.59
22:DA:2674:G:H4'	32:DK:30:ARG:CG	2.32	0.59
22:DA:2742:G:OP1	52:D4:36:ARG:HD3	2.02	0.59
35:DN:57:THR:O	35:DN:80:PHE:HD1	1.85	0.59
39:DR:49:ILE:O	39:DR:49:ILE:HG13	2.01	0.59
41:DT:29:THR:HA	41:DT:87:LEU:HB2	1.84	0.59
47:DZ:6:ILE:HD12	47:DZ:47:ILE:HD11	1.84	0.59
1:AA:267:C:O2'	1:AA:268:U:C5'	2.46	0.59
1:AA:275:G:C8	1:AA:275:G:H5''	2.38	0.59
1:AA:1038:C:H2'	1:AA:1039:G:H8	1.65	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:100:VAL:O	4:AD:100:VAL:CG1	2.50	0.59
6:AF:4:TYR:CD2	6:AF:71:ILE:HD13	2.36	0.59
8:AH:78:SER:OG	8:AH:83:ARG:HA	2.02	0.59
14:AN:12:ARG:HG2	14:AN:53:ASP:HB3	1.84	0.59
14:AN:92:ILE:HG22	14:AN:95:LEU:HB2	1.83	0.59
17:AQ:12:VAL:HG13	17:AQ:13:SER:N	2.15	0.59
17:AQ:29:LYS:HG2	17:AQ:34:GLY:HA2	1.83	0.59
20:AT:34:VAL:HG11	20:AT:78:LEU:CD2	2.32	0.59
22:BA:395:U:O2'	22:BA:396:G:N7	2.35	0.59
22:BA:1498:C:O2'	22:BA:1499:C:H5'	2.02	0.59
25:BD:108:ASP:OD2	25:BD:173:GLN:HA	2.01	0.59
31:BJ:81:ILE:CG2	31:BJ:82:GLY:H	1.96	0.59
34:BM:109:PRO:O	34:BM:110:GLU:C	2.45	0.59
41:BT:54:GLU:O	41:BT:55:VAL:HB	2.03	0.59
42:BU:15:GLY:O	42:BU:17:ASP:N	2.34	0.59
44:BW:19:ARG:NH2	44:BW:22:VAL:HG21	2.17	0.59
44:BW:28:GLU:OE2	44:BW:28:GLU:HA	2.03	0.59
53:CA:33:A:C4	53:CA:34:C:C6	2.90	0.59
53:CA:71:A:C2	53:CA:72:A:C8	2.91	0.59
53:CA:177:G:O2'	53:CA:1448:C:C4'	2.50	0.59
53:CA:1147:C:HO2'	53:CA:1148:U:H6	1.47	0.59
53:CA:1167:A:N7	53:CA:1169:A:N6	2.49	0.59
53:CA:1365:G:O2'	53:CA:1366:C:C5'	2.50	0.59
53:CA:1431:A:C6	53:CA:1432:G:N1	2.70	0.59
2:CB:26:MET:HG2	2:CB:188:THR:HA	1.83	0.59
2:CB:209:VAL:HG23	2:CB:210:THR:N	2.17	0.59
5:CE:45:VAL:HG22	5:CE:46:GLY:N	2.17	0.59
10:CJ:77:VAL:O	10:CJ:79:PRO:HD3	2.02	0.59
55:CM:15:VAL:O	55:CM:19:THR:HG23	2.01	0.59
55:CM:16:ILE:HD12	55:CM:16:ILE:N	2.17	0.59
55:CM:77:LYS:HD3	55:CM:77:LYS:C	2.27	0.59
22:DA:374:A:N6	22:DA:401:A:C8	2.70	0.59
22:DA:464:U:C1'	22:DA:686:U:H5	2.15	0.59
22:DA:507:A:H2'	22:DA:507:A:OP2	2.01	0.59
22:DA:605:G:O2'	22:DA:606:U:C5'	2.50	0.59
22:DA:656:G:H2'	22:DA:657:U:C6	2.37	0.59
22:DA:1059:G:N3	30:DI:131:THR:HG22	2.17	0.59
22:DA:1252:G:C4	22:DA:1253:A:C2	2.90	0.59
22:DA:2216:G:O2'	22:DA:2217:G:C5'	2.51	0.59
25:DD:106:LYS:HD3	25:DD:106:LYS:N	2.17	0.59
28:DG:43:LYS:O	28:DG:49:LEU:HD12	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:149:ALA:O	28:DG:151:ARG:N	2.35	0.59
30:DI:58:ILE:HG23	30:DI:66:PHE:CD2	2.38	0.59
32:DK:119:ALA:N	32:DK:120:PRO:HD2	2.18	0.59
39:DR:49:ILE:HD12	39:DR:51:VAL:O	2.03	0.59
44:DW:13:ARG:HG3	44:DW:14:ASP:N	2.10	0.59
1:AA:829:G:O2'	1:AA:830:G:H5'	2.02	0.59
1:AA:1352:C:H2'	1:AA:1353:G:H8	1.65	0.59
1:AA:1379:G:O6	7:AG:1:PRO:HB2	2.01	0.59
1:AA:1458:G:H5'	20:AT:26:MET:HB3	1.84	0.59
4:AD:131:ILE:HD12	4:AD:131:ILE:N	2.16	0.59
10:AJ:42:LEU:HB3	10:AJ:43:PRO:CD	2.31	0.59
13:AM:95:PRO:HG3	13:AM:101:THR:HG22	1.84	0.59
22:BA:313:G:C2'	22:BA:314:C:H5'	2.32	0.59
22:BA:608:A:C6	22:BA:609:A:C6	2.90	0.59
22:BA:819:A:C4	22:BA:1189:A:C2	2.90	0.59
22:BA:1062:G:C2'	22:BA:1063:G:C8	2.86	0.59
22:BA:1471:G:C4	22:BA:1472:C:C5	2.90	0.59
22:BA:1681:G:O2'	22:BA:1762:A:C2'	2.50	0.59
22:BA:2352:A:N1	44:BW:30:VAL:CG1	2.57	0.59
22:BA:2466:C:C5'	52:B4:5:ALA:HB3	2.31	0.59
26:BE:76:PRO:HA	26:BE:82:GLY:CA	2.30	0.59
27:BF:46:LYS:H	27:BF:46:LYS:CD	2.14	0.59
28:BG:112:VAL:O	28:BG:113:ASP:HB2	2.01	0.59
31:BJ:43:GLU:O	31:BJ:45:THR:N	2.35	0.59
35:BN:65:LEU:HD11	35:BN:69:ARG:HH21	1.65	0.59
37:BP:113:LEU:O	37:BP:113:LEU:HG	2.01	0.59
45:BX:30:PRO:HG2	45:BX:32:LEU:HD11	1.85	0.59
47:BZ:43:ILE:C	47:BZ:43:ILE:HD12	2.28	0.59
53:CA:154:U:H2'	53:CA:155:A:C5'	2.29	0.59
53:CA:172:A:C5	53:CA:174:A:N7	2.71	0.59
53:CA:311:C:O2'	53:CA:312:C:H5'	2.02	0.59
53:CA:596:A:N6	53:CA:645:G:C6	2.70	0.59
53:CA:765:G:N7	53:CA:812:G:C4	2.71	0.59
53:CA:1319:A:OP2	19:CS:4:LEU:HD21	2.02	0.59
4:CD:24:VAL:HG23	4:CD:25:ARG:N	2.17	0.59
18:CR:51:GLN:HA	18:CR:51:GLN:OE1	2.01	0.59
20:CT:34:VAL:HG21	20:CT:53:MET:HG2	1.85	0.59
22:DA:512:G:OP2	22:DA:1235:G:H5'	2.02	0.59
22:DA:609:A:H2'	22:DA:610:C:O4'	2.02	0.59
22:DA:1071:G:O2'	22:DA:1072:C:C5'	2.49	0.59
22:DA:1973:G:C6	22:DA:1974:C:C4	2.90	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2283:C:N4	22:DA:2389:G:C5	2.71	0.59
22:DA:2691:C:H6	22:DA:2691:C:C5'	2.15	0.59
57:DB:68:C:O2'	57:DB:69:G:C5'	2.50	0.59
25:DD:105:LYS:HA	25:DD:177:VAL:HG22	1.83	0.59
25:DD:117:GLY:O	25:DD:119:ALA:N	2.36	0.59
26:DE:1:MET:HE2	26:DE:14:VAL:HG23	1.85	0.59
26:DE:61:ARG:O	26:DE:61:ARG:HD2	2.02	0.59
58:DF:30:VAL:HG12	58:DF:157:THR:CG2	2.31	0.59
33:DL:110:VAL:O	33:DL:111:ILE:HG12	2.02	0.59
35:DN:14:SER:C	35:DN:16:HIS:N	2.59	0.59
38:DQ:96:ASP:C	38:DQ:98:ALA:H	2.11	0.59
46:DY:22:LEU:HG	46:DY:23:ARG:NH1	2.18	0.59
47:DZ:21:ALA:HA	47:DZ:24:LEU:HD22	1.84	0.59
51:D3:46:LYS:O	51:D3:46:LYS:HD3	2.01	0.59
1:AA:1097:C:H2'	1:AA:1098:C:C6	2.37	0.59
3:AC:133:MET:HB3	3:AC:150:VAL:CG2	2.33	0.59
4:AD:144:ILE:N	4:AD:144:ILE:HD13	2.17	0.59
8:AH:25:THR:O	8:AH:26:MET:HB3	2.02	0.59
12:AL:86:VAL:HG11	12:AL:89:LEU:HD23	1.84	0.59
22:BA:301:G:O2'	22:BA:302:C:O5'	2.20	0.59
22:BA:547:A:C8	22:BA:548:G:N3	2.70	0.59
22:BA:587:C:OP2	33:BL:21:ARG:NH1	2.36	0.59
22:BA:704:G:O2'	22:BA:705:A:OP2	2.20	0.59
22:BA:863:A:O2'	22:BA:864:G:H5'	2.03	0.59
22:BA:994:C:H1'	39:BR:10:LYS:NZ	2.16	0.59
22:BA:1385:A:H4'	22:BA:1386:C:OP1	2.03	0.59
22:BA:1444:G:H2'	22:BA:1445:G:H8	1.66	0.59
22:BA:1641:A:H5''	22:BA:1642:G:OP2	2.02	0.59
22:BA:2104:C:H2'	22:BA:2105:U:O4'	2.02	0.59
23:BB:50:A:H2'	23:BB:51:G:O5'	2.02	0.59
26:BE:108:ILE:CD1	26:BE:180:LEU:HB3	2.32	0.59
27:BF:38:GLY:HA2	27:BF:85:GLY:HA3	1.85	0.59
27:BF:42:ALA:HB2	27:BF:49:LEU:HB2	1.84	0.59
28:BG:8:VAL:HG12	28:BG:49:LEU:H	1.67	0.59
30:BI:105:LEU:HA	30:BI:108:ILE:HB	1.84	0.59
32:BK:12:ASP:HB3	32:BK:85:VAL:HG13	1.84	0.59
32:BK:61:VAL:HG23	32:BK:87:LEU:HD11	1.84	0.59
32:BK:111:LYS:H	32:BK:111:LYS:HE3	1.67	0.59
37:BP:27:VAL:HG22	37:BP:83:ILE:HG12	1.84	0.59
37:BP:37:LYS:HD3	37:BP:37:LYS:N	2.16	0.59
41:BT:57:VAL:O	41:BT:85:VAL:O	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:59:ASN:O	41:BT:83:ALA:O	2.19	0.59
45:BX:58:ILE:HD11	45:BX:66:VAL:HG11	1.84	0.59
50:B2:22:MET:HE3	50:B2:28:ARG:CD	2.32	0.59
51:B3:54:LEU:O	51:B3:58:ILE:HG13	2.01	0.59
53:CA:523:A:N6	12:CL:49:ARG:HH12	1.99	0.59
53:CA:562:U:H4'	53:CA:563:A:O5'	2.02	0.59
53:CA:828:U:C2'	53:CA:829:G:O5'	2.50	0.59
53:CA:1087:G:C6	53:CA:1099:G:C2	2.90	0.59
53:CA:1170:A:H2'	53:CA:1171:A:O4'	2.03	0.59
2:CB:29:PHE:O	2:CB:40:ILE:HG23	2.02	0.59
8:CH:9:MET:O	8:CH:13:ILE:HG13	2.02	0.59
55:CM:57:ASP:O	55:CM:61:LYS:HG3	2.01	0.59
19:CS:13:HIS:O	19:CS:17:LYS:HG2	2.01	0.59
22:DA:270:A:N1	22:DA:369:U:H1'	2.17	0.59
22:DA:516:C:H2'	22:DA:517:C:H6	1.68	0.59
22:DA:571:U:C6	22:DA:575:A:N6	2.70	0.59
22:DA:674:G:H5''	26:DE:71:GLY:N	2.17	0.59
22:DA:1713:A:H4'	22:DA:1714:U:OP1	2.00	0.59
22:DA:1808:A:C3'	22:DA:1809:A:H8	2.15	0.59
22:DA:1814:G:N1	22:DA:1815:A:N6	2.51	0.59
22:DA:1838:C:C2	22:DA:1899:A:C2	2.90	0.59
22:DA:1905:C:O2'	22:DA:1929:G:O2'	2.18	0.59
22:DA:2053:G:O2'	22:DA:2054:A:H5'	2.01	0.59
22:DA:2232:C:OP1	45:DX:26:ARG:NH1	2.36	0.59
22:DA:2726:A:HO2'	32:DK:67:LYS:NZ	2.00	0.59
22:DA:2847:U:H2'	22:DA:2848:G:C5'	2.31	0.59
24:DC:63:ILE:O	24:DC:64:VAL:HB	2.02	0.59
24:DC:145:MET:HE3	24:DC:181:ARG:HH22	1.65	0.59
25:DD:110:THR:HA	25:DD:171:THR:HA	1.85	0.59
58:DF:30:VAL:HG13	58:DF:168:LEU:HD23	1.82	0.59
58:DF:45:ASP:C	58:DF:47:LYS:H	2.10	0.59
33:DL:29:LYS:HG2	33:DL:29:LYS:O	2.01	0.59
33:DL:92:LEU:HD23	33:DL:124:GLY:HA3	1.83	0.59
37:DP:50:ARG:CA	37:DP:57:ALA:H	2.16	0.59
43:DV:63:ILE:O	43:DV:63:ILE:HG22	2.01	0.59
1:AA:206:C:C2'	1:AA:207:C:O4'	2.46	0.59
1:AA:258:G:H5''	62:AA:1701:HOH:O	2.03	0.59
1:AA:267:C:HO2'	1:AA:268:U:H5'	1.64	0.59
1:AA:316:C:C2	1:AA:317:U:C5	2.90	0.59
1:AA:429:U:C1'	1:AA:430:A:H5''	2.33	0.59
1:AA:862:C:O2'	1:AA:863:U:H5'	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:55:VAL:N	5:AE:56:PRO:HD2	2.16	0.59
12:AL:85:ARG:HH21	12:AL:87:LYS:HD2	1.67	0.59
16:AP:3:THR:HG22	16:AP:4:ILE:N	2.17	0.59
17:AQ:13:SER:HB3	17:AQ:16:MET:HE1	1.83	0.59
22:BA:2148:G:C2'	22:BA:2149:U:O4'	2.51	0.59
22:BA:2231:U:H2'	22:BA:2232:C:H5'	1.83	0.59
22:BA:2558:C:H2'	22:BA:2559:C:H5'	1.84	0.59
25:BD:40:LEU:H	25:BD:40:LEU:HD12	1.68	0.59
31:BJ:56:VAL:CG1	31:BJ:57:LEU:H	2.16	0.59
33:BL:96:LYS:HG3	33:BL:101:ILE:CG2	2.32	0.59
38:BQ:49:ARG:HH11	38:BQ:49:ARG:CG	2.02	0.59
40:BS:53:SER:O	40:BS:56:ALA:HB3	2.02	0.59
53:CA:183:C:H2'	53:CA:183:C:O2	2.02	0.59
53:CA:277:C:H2'	53:CA:278:G:C8	2.37	0.59
53:CA:414:A:C2'	53:CA:415:A:H5''	2.32	0.59
53:CA:428:G:H1'	53:CA:430:A:C8	2.37	0.59
53:CA:512:U:O2'	53:CA:513:C:H5'	2.02	0.59
53:CA:914:A:O2'	53:CA:915:A:C5'	2.51	0.59
53:CA:994:A:C5	53:CA:1216:A:H4'	2.38	0.59
54:CG:14:ASP:HB3	54:CG:18:GLY:N	2.12	0.59
54:CG:119:LEU:O	54:CG:123:LEU:HD23	2.02	0.59
9:CI:56:MET:HG3	9:CI:57:VAL:HG23	1.84	0.59
10:CJ:65:TYR:HB3	14:CN:95:LEU:CD1	2.32	0.59
14:CN:26:LEU:O	14:CN:26:LEU:HD23	2.03	0.59
20:CT:26:MET:HE2	20:CT:26:MET:O	2.02	0.59
20:CT:58:ASP:O	20:CT:61:ALA:HB3	2.02	0.59
22:DA:321:U:O4'	26:DE:159:LEU:HG	2.02	0.59
22:DA:379:G:C6	22:DA:380:G:C5	2.90	0.59
22:DA:876:C:H2'	22:DA:877:A:OP1	2.03	0.59
22:DA:1307:A:H2'	22:DA:1308:A:H5'	1.85	0.59
22:DA:1360:G:C2'	22:DA:1361:G:H5'	2.32	0.59
22:DA:1654:A:O2'	22:DA:1655:A:C5'	2.51	0.59
22:DA:1676:A:H2'	22:DA:1677:A:O4'	2.02	0.59
22:DA:2800:A:N3	22:DA:2801:G:H1'	2.16	0.59
22:DA:2834:G:H1'	22:DA:2879:A:N6	2.18	0.59
57:DB:26:C:H1'	57:DB:117:G:H1'	1.84	0.59
26:DE:52:VAL:HB	26:DE:74:LYS:HD3	1.84	0.59
41:DT:21:SER:HA	41:DT:25:GLU:HB2	1.84	0.59
43:DV:16:ALA:HA	43:DV:19:ARG:CZ	2.32	0.59
50:D2:10:LEU:O	50:D2:10:LEU:HD23	2.03	0.59
1:AA:164:G:H2'	1:AA:165:G:H5'	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1452:C:H5'	1:AA:1453:G:C5	2.37	0.59
5:AE:136:VAL:O	5:AE:137:ARG:HB2	2.02	0.59
8:AH:17:GLN:HE21	8:AH:71:VAL:HG23	1.68	0.59
14:AN:42:ASN:C	14:AN:44:VAL:H	2.10	0.59
14:AN:62:ARG:NH1	14:AN:69:PRO:HG3	2.17	0.59
22:BA:90:U:H2'	22:BA:91:A:H8	1.65	0.59
22:BA:340:A:C2'	22:BA:341:C:H5'	2.33	0.59
22:BA:449:A:H1'	38:BQ:2:ARG:HH22	1.66	0.59
22:BA:1179:G:N7	22:BA:1180:U:H1'	2.17	0.59
22:BA:1537:G:H2'	22:BA:1538:G:O4'	2.02	0.59
22:BA:1963:U:O5'	22:BA:1963:U:H6	1.86	0.59
22:BA:2509:G:H2'	22:BA:2510:C:C5'	2.33	0.59
22:BA:2555:U:C5	22:BA:2556:C:N1	2.70	0.59
27:BF:39:VAL:HG11	27:BF:42:ALA:HB2	1.83	0.59
35:BN:103:ARG:HB2	35:BN:110:MET:CE	2.32	0.59
37:BP:33:GLU:HG3	37:BP:34:GLY:N	2.17	0.59
40:BS:66:ILE:HA	40:BS:69:LEU:HD22	1.83	0.59
48:B0:42:ILE:HG23	48:B0:46:GLY:HA2	1.85	0.59
53:CA:631:C:C3'	53:CA:632:U:H5'	2.30	0.59
53:CA:1160:G:O2'	53:CA:1161:C:C5'	2.50	0.59
54:CG:99:ALA:O	54:CG:103:ILE:HG13	2.02	0.59
9:CI:119:LYS:O	9:CI:119:LYS:HG3	2.03	0.59
22:DA:37:C:O2'	22:DA:38:A:H5'	2.02	0.59
22:DA:310:A:H1'	22:DA:311:A:C8	2.38	0.59
22:DA:510:C:H2'	22:DA:511:U:C5	2.36	0.59
22:DA:511:U:C4'	22:DA:1235:G:H4'	2.31	0.59
22:DA:676:A:H2	22:DA:2069:G:N3	2.00	0.59
22:DA:2331:G:N1	22:DA:2385:C:N4	2.50	0.59
57:DB:57:A:O2'	57:DB:58:A:C8	2.43	0.59
24:DC:171:VAL:HG12	24:DC:173:LEU:HD13	1.84	0.59
58:DF:92:GLY:O	58:DF:95:MET:HB3	2.03	0.59
31:DJ:44:TYR:CD2	31:DJ:44:TYR:C	2.81	0.59
32:DK:60:ALA:HB2	32:DK:86:LEU:HA	1.85	0.59
38:DQ:4:LYS:NZ	38:DQ:7:VAL:H	2.01	0.59
41:DT:7:LEU:O	41:DT:7:LEU:HD23	2.02	0.59
1:AA:222:C:O2'	1:AA:223:A:H5'	2.03	0.59
1:AA:266:G:O3'	17:AQ:68:LYS:HB2	2.03	0.59
1:AA:797:C:C2'	1:AA:798:U:H5'	2.33	0.59
1:AA:968:A:C4'	1:AA:969:A:OP2	2.49	0.59
1:AA:1095:U:O2'	1:AA:1096:C:H5'	2.02	0.59
1:AA:1161:C:O2'	1:AA:1162:C:C6	2.52	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1233:G:H2'	1:AA:1234:C:C6	2.37	0.59
1:AA:1317:C:H2'	1:AA:1318:A:C5'	2.33	0.59
3:AC:18:ASN:CB	3:AC:39:ARG:HH12	2.14	0.59
4:AD:109:THR:CG2	4:AD:112:GLU:HB2	2.33	0.59
8:AH:50:VAL:O	8:AH:50:VAL:HG13	2.02	0.59
18:AR:40:PRO:O	18:AR:44:THR:HG23	2.02	0.59
22:BA:229:C:H2'	22:BA:230:G:O4'	2.02	0.59
22:BA:960:A:H2'	22:BA:962:G:H5'	1.85	0.59
22:BA:995:C:O2'	22:BA:996:A:P	2.60	0.59
22:BA:1791:A:N6	22:BA:1828:G:O2'	2.33	0.59
22:BA:2491:U:H5''	22:BA:2570:G:H5''	1.83	0.59
26:BE:147:LEU:HD23	26:BE:183:PHE:CE1	2.38	0.59
28:BG:83:THR:CA	28:BG:84:LYS:HE2	2.31	0.59
31:BJ:43:GLU:O	31:BJ:44:TYR:C	2.46	0.59
32:BK:71:ARG:NE	32:BK:71:ARG:HA	2.18	0.59
34:BM:46:ILE:HD12	34:BM:46:ILE:C	2.28	0.59
34:BM:81:ARG:HG3	34:BM:82:MET:H	1.67	0.59
42:BU:97:SER:O	42:BU:98:ASN:CB	2.50	0.59
44:BW:39:GLN:O	44:BW:40:ARG:C	2.45	0.59
50:B2:3:ARG:HH21	50:B2:3:ARG:CG	2.01	0.59
53:CA:497:G:O2'	53:CA:498:A:H5'	2.02	0.59
53:CA:994:A:C2	53:CA:995:C:C6	2.91	0.59
53:CA:1447:A:O2'	53:CA:1448:C:OP1	2.19	0.59
2:CB:9:LEU:C	2:CB:11:ALA:H	2.09	0.59
8:CH:75:GLN:O	8:CH:126:CYS:HB2	2.03	0.59
9:CI:30:ASN:O	9:CI:32:ARG:HG2	2.03	0.59
10:CJ:12:ALA:N	10:CJ:18:ILE:HD12	2.18	0.59
55:CM:69:ARG:HA	55:CM:72:ILE:HG22	1.85	0.59
20:CT:4:LYS:HB3	20:CT:6:ALA:H	1.68	0.59
22:DA:170:U:C2	22:DA:171:U:C5	2.90	0.59
22:DA:259:G:C6	22:DA:260:G:N7	2.70	0.59
22:DA:511:U:H5''	22:DA:512:G:OP2	2.03	0.59
22:DA:656:G:O2'	22:DA:657:U:H5'	2.03	0.59
22:DA:659:G:H2'	22:DA:660:C:C6	2.37	0.59
22:DA:729:G:N3	22:DA:729:G:H2'	2.17	0.59
22:DA:992:C:O3'	39:DR:74:ILE:CD1	2.50	0.59
22:DA:1031:G:O2'	52:D4:7:VAL:HG12	2.03	0.59
22:DA:1060:U:H4'	22:DA:1061:U:C5'	2.31	0.59
22:DA:1317:G:C6	22:DA:1318:U:N3	2.71	0.59
22:DA:1343:G:C5	22:DA:1597:A:N6	2.71	0.59
22:DA:1605:C:H4'	22:DA:1610:A:N1	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1716:U:O2'	22:DA:1717:A:C5'	2.51	0.59
22:DA:2191:A:C5	22:DA:2192:U:C5	2.90	0.59
22:DA:2520:C:O2'	22:DA:2521:C:H6	1.74	0.59
22:DA:2552:U:C2	22:DA:2554:U:C5'	2.86	0.59
22:DA:2559:C:O2'	22:DA:2560:A:H5'	2.03	0.59
57:DB:58:A:O2'	57:DB:59:A:C5'	2.51	0.59
24:DC:93:VAL:HG11	24:DC:101:ARG:H	1.65	0.59
25:DD:109:VAL:HG21	25:DD:175:LEU:HD13	1.83	0.59
29:DH:78:VAL:HG21	29:DH:144:VAL:HG13	1.83	0.59
31:DJ:106:LYS:HB2	31:DJ:119:PHE:CE2	2.36	0.59
35:DN:75:ILE:HD12	35:DN:75:ILE:C	2.27	0.59
36:DO:4:LYS:HG3	36:DO:8:ILE:HD11	1.85	0.59
39:DR:9:GLY:O	39:DR:10:LYS:HG3	2.02	0.59
46:DY:22:LEU:HD12	46:DY:23:ARG:HH12	1.67	0.59
1:AA:49:U:C4	1:AA:364:A:C6	2.91	0.59
1:AA:351:G:H4'	1:AA:352:C:OP1	2.03	0.59
1:AA:543:U:O2'	1:AA:544:G:H5'	2.02	0.59
1:AA:957:U:O2	1:AA:959:A:H8	1.85	0.59
3:AC:54:ILE:HD12	3:AC:55:VAL:N	2.18	0.59
3:AC:76:ILE:C	3:AC:82:ASP:HB2	2.28	0.59
4:AD:71:PHE:HE1	4:AD:199:ILE:HD11	1.67	0.59
4:AD:145:ARG:HD2	4:AD:147:LYS:CE	2.32	0.59
16:AP:77:GLU:C	16:AP:79:ASN:H	2.09	0.59
22:BA:92:U:H6	22:BA:92:U:H5''	1.68	0.59
22:BA:580:U:O3'	38:BQ:30:VAL:CG1	2.51	0.59
22:BA:656:G:H2'	22:BA:657:U:C6	2.37	0.59
22:BA:682:G:H5'	50:B2:26:ASN:OD1	2.03	0.59
22:BA:784:G:O6	24:BC:227:VAL:HG11	2.02	0.59
22:BA:1277:G:H5'	35:BN:20:MET:HE1	1.85	0.59
22:BA:1714:U:O2	22:BA:1714:U:C2'	2.49	0.59
22:BA:1747:U:H2'	22:BA:1748:C:C6	2.37	0.59
22:BA:1794:A:H2'	22:BA:1795:C:H6	1.68	0.59
22:BA:2842:G:O2'	22:BA:2843:G:H5'	2.03	0.59
27:BF:72:SER:OG	27:BF:79:ARG:HA	2.03	0.59
28:BG:74:MET:O	28:BG:78:VAL:HG22	2.02	0.59
42:BU:44:HIS:O	42:BU:45:GLN:C	2.45	0.59
45:BX:44:ARG:CG	45:BX:45:PHE:N	2.66	0.59
46:BY:17:GLU:HB2	46:BY:53:VAL:HG11	1.85	0.59
47:BZ:35:VAL:HG21	47:BZ:37:ARG:NH1	2.18	0.59
53:CA:91:U:O2'	53:CA:92:U:C6	2.50	0.59
53:CA:202:G:O2'	53:CA:468:A:H8	1.86	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:441:A:H61	53:CA:493:A:H62	1.51	0.59
53:CA:719:C:H3'	53:CA:720:C:H6	1.66	0.59
53:CA:952:U:H5	55:CM:102:LYS:HZ1	1.48	0.59
53:CA:1006:G:N2	53:CA:1007:U:H1'	2.18	0.59
53:CA:1113:C:H2'	53:CA:1114:C:H6	1.67	0.59
2:CB:161:PHE:HA	2:CB:183:PHE:O	2.03	0.59
3:CC:39:ARG:CG	3:CC:54:ILE:HD13	2.33	0.59
5:CE:148:SER:H	5:CE:151:MET:HE3	1.68	0.59
55:CM:21:ILE:HB	55:CM:24:VAL:HG23	1.84	0.59
22:DA:91:A:HO2'	22:DA:92:U:H6	1.49	0.59
22:DA:500:G:N2	22:DA:503:A:C8	2.71	0.59
22:DA:519:U:H5''	40:DS:25:ARG:NH2	2.17	0.59
22:DA:536:G:C2'	22:DA:537:G:H5'	2.32	0.59
22:DA:538:A:H5''	31:DJ:7:LYS:HZ2	1.65	0.59
22:DA:590:A:H2'	22:DA:591:U:C6	2.37	0.59
22:DA:852:U:H5'	47:DZ:45:GLY:HA3	1.84	0.59
22:DA:1287:A:H5'	35:DN:103:ARG:HD2	1.85	0.59
22:DA:1338:G:H4'	41:DT:18:GLU:CG	2.33	0.59
22:DA:1342:A:C5	22:DA:1345:C:N4	2.71	0.59
22:DA:1631:G:H1'	22:DA:1635:A:H61	1.68	0.59
22:DA:1649:G:C6	22:DA:2009:A:N1	2.71	0.59
22:DA:1651:G:C2	22:DA:2007:U:C2	2.91	0.59
22:DA:1848:A:H2'	22:DA:1849:G:C8	2.37	0.59
22:DA:2055:C:H2'	22:DA:2504:U:H4'	1.85	0.59
22:DA:2394:C:O2'	22:DA:2395:C:H5'	2.02	0.59
57:DB:50:A:OP1	36:DO:68:LYS:HB2	2.03	0.59
57:DB:69:G:H3'	57:DB:70:C:C5	2.37	0.59
24:DC:147:PRO:CD	24:DC:184:GLU:HG3	2.26	0.59
28:DG:163:TYR:N	28:DG:163:TYR:CD2	2.69	0.59
33:DL:132:ARG:HA	33:DL:135:ILE:HG22	1.84	0.59
37:DP:102:ARG:O	37:DP:103:THR:CB	2.51	0.59
43:DV:80:HIS:HD2	43:DV:83:LYS:N	2.00	0.59
49:D1:13:SER:OG	49:D1:46:VAL:HG22	2.03	0.59
1:AA:186:C:H4'	20:AT:75:LYS:HG3	1.85	0.59
1:AA:464:U:C2	1:AA:466:A:H5''	2.37	0.59
2:AB:44:LYS:O	2:AB:48:MET:HB2	2.02	0.59
4:AD:48:SER:O	4:AD:52:VAL:HG13	2.02	0.59
9:AI:29:ILE:HA	9:AI:64:ILE:O	2.03	0.59
10:AJ:8:ILE:HA	10:AJ:99:GLN:O	2.02	0.59
12:AL:33:CYS:HA	12:AL:53:ARG:O	2.03	0.59
22:BA:387:U:H4'	22:BA:388:G:O5'	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:475:C:C4	22:BA:481:G:O6	2.56	0.59
22:BA:851:C:O2'	22:BA:852:U:H5'	2.02	0.59
24:BC:29:PHE:CE2	24:BC:31:PRO:HG2	2.38	0.59
27:BF:41:GLU:HB2	27:BF:48:LEU:HD23	1.85	0.59
28:BG:86:LEU:CD1	28:BG:130:ILE:HB	2.32	0.59
29:BH:32:PRO:O	29:BH:33:GLN:HB2	2.03	0.59
34:BM:36:VAL:HG22	43:BV:82:TYR:CD1	2.38	0.59
37:BP:30:TRP:CE3	37:BP:39:LEU:HD12	2.38	0.59
38:BQ:91:ARG:CZ	38:BQ:93:ILE:HG21	2.32	0.59
39:BR:49:ILE:CB	39:BR:51:VAL:O	2.50	0.59
43:BV:10:LYS:N	43:BV:10:LYS:CD	2.52	0.59
52:B4:36:ARG:CG	52:B4:37:GLN:H	2.05	0.59
53:CA:123:U:OP1	53:CA:311:C:O2'	2.20	0.59
53:CA:197:A:H4'	53:CA:198:G:O5'	2.02	0.59
53:CA:1503:A:C8	53:CA:1531:A:H1'	2.37	0.59
12:CL:75:GLU:C	12:CL:77:SER:H	2.11	0.59
15:CO:69:LEU:HD11	15:CO:77:TYR:HA	1.84	0.59
18:CR:71:ASP:HB3	18:CR:72:ARG:HH21	1.68	0.59
22:DA:52:A:H2	22:DA:179:C:O4'	1.86	0.59
22:DA:254:G:N7	51:D3:4:LYS:HE2	2.18	0.59
22:DA:415:A:C2	22:DA:2409:G:C6	2.91	0.59
22:DA:620:G:H5'	22:DA:621:A:OP1	2.03	0.59
22:DA:627:A:O2'	22:DA:628:G:C8	2.54	0.59
22:DA:1204:A:N1	22:DA:1241:A:N1	2.49	0.59
22:DA:1667:G:OP1	32:DK:6:THR:HA	2.03	0.59
22:DA:1668:A:H4'	22:DA:1669:A:O5'	2.02	0.59
22:DA:2019:A:H4'	38:DQ:33:VAL:CG2	2.33	0.59
22:DA:2623:G:H4'	22:DA:2825:G:H8	1.68	0.59
28:DG:91:VAL:N	28:DG:93:TYR:CD2	2.71	0.59
29:DH:80:ILE:HB	29:DH:101:ASP:HB3	1.80	0.59
30:DI:45:THR:HG23	30:DI:54:ILE:CD1	2.28	0.59
37:DP:50:ARG:HB3	37:DP:56:SER:HB3	1.85	0.59
38:DQ:84:LYS:C	38:DQ:86:SER:H	2.11	0.59
39:DR:49:ILE:HG22	39:DR:54:VAL:N	2.18	0.59
44:DW:33:GLY:O	44:DW:34:SER:CB	2.50	0.59
1:AA:6:G:O2'	1:AA:7:A:H8	1.86	0.58
1:AA:148:G:N3	1:AA:1446:A:H2	2.01	0.58
1:AA:328:C:O2	1:AA:328:C:H2'	2.02	0.58
1:AA:430:A:H2'	1:AA:431:A:H8	1.66	0.58
1:AA:669:G:C2'	1:AA:670:G:H5'	2.32	0.58
1:AA:1526:G:P	21:AU:38:GLU:HB2	2.43	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:196:GLU:C	4:AD:198:LEU:N	2.61	0.58
5:AE:121:ASN:HD22	5:AE:121:ASN:N	2.01	0.58
17:AQ:76:ARG:HG2	17:AQ:77:VAL:H	1.68	0.58
22:BA:357:C:O2'	22:BA:358:U:H5'	2.02	0.58
22:BA:616:A:H2'	22:BA:617:G:C8	2.38	0.58
22:BA:1132:U:H3'	22:BA:1133:A:H5''	1.84	0.58
22:BA:1290:C:H2'	22:BA:1291:C:C6	2.38	0.58
22:BA:2480:C:H2'	22:BA:2481:G:H5'	1.85	0.58
22:BA:2514:U:H2'	22:BA:2515:C:C6	2.38	0.58
22:BA:2716:C:O2'	22:BA:2717:C:H5'	2.03	0.58
25:BD:15:PHE:H	37:BP:11:GLN:HE22	1.51	0.58
25:BD:92:VAL:HG12	25:BD:92:VAL:O	2.03	0.58
28:BG:61:TRP:O	28:BG:65:GLY:N	2.28	0.58
30:BI:120:ASP:HB3	30:BI:123:ALA:HB3	1.83	0.58
31:BJ:17:VAL:CG2	31:BJ:137:PRO:HB2	2.33	0.58
31:BJ:18:VAL:CG2	31:BJ:140:LEU:HD11	2.33	0.58
34:BM:66:ARG:NH1	34:BM:104:GLU:OE1	2.34	0.58
36:BO:105:ALA:O	36:BO:106:LEU:HB3	2.01	0.58
38:BQ:27:ARG:CG	38:BQ:27:ARG:NH1	2.49	0.58
45:BX:39:VAL:O	45:BX:41:SER:N	2.34	0.58
53:CA:702:A:H5'	53:CA:703:G:N7	2.18	0.58
53:CA:1146:A:O2'	53:CA:1147:C:C5'	2.51	0.58
53:CA:1206:G:C6	53:CA:1207:G:C5	2.91	0.58
53:CA:1299:A:C8	53:CA:1301:U:H1'	2.38	0.58
53:CA:1308:U:H5	55:CM:97:ARG:CZ	2.16	0.58
53:CA:1323:G:H2'	53:CA:1324:A:C8	2.38	0.58
53:CA:1367:C:O2'	53:CA:1368:A:O4'	2.21	0.58
2:CB:185:ILE:CA	2:CB:199:ILE:HG13	2.32	0.58
2:CB:186:VAL:O	2:CB:186:VAL:HG23	2.02	0.58
4:CD:2:ARG:CZ	4:CD:114:ARG:HD3	2.33	0.58
9:CI:48:ARG:HH21	9:CI:57:VAL:HG21	1.67	0.58
14:CN:1:ALA:HA	14:CN:67:GLY:C	2.28	0.58
19:CS:52:ASN:HD21	19:CS:55:GLN:N	2.01	0.58
22:DA:172:A:O2'	22:DA:173:A:H5'	2.03	0.58
22:DA:265:A:N7	22:DA:427:U:O2'	2.36	0.58
22:DA:372:G:H22	22:DA:400:G:H2'	1.67	0.58
22:DA:1039:A:H2'	22:DA:1040:A:O4'	2.03	0.58
22:DA:1127:A:HO2'	22:DA:1128:G:H5'	1.65	0.58
22:DA:1241:A:N3	22:DA:1241:A:H5'	2.17	0.58
22:DA:1826:G:C6	22:DA:1827:U:C4	2.91	0.58
22:DA:2093:G:C2	22:DA:2094:A:C8	2.90	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2549:G:N2	22:DA:2560:A:C4	2.71	0.58
22:DA:2800:A:C2'	22:DA:2801:G:C4'	2.78	0.58
22:DA:2869:G:H2'	22:DA:2870:C:O4'	2.03	0.58
57:DB:77:U:C2'	57:DB:78:A:H5'	2.32	0.58
26:DE:85:PHE:O	26:DE:86:ALA:C	2.46	0.58
58:DF:58:ALA:HB1	58:DF:139:GLU:HG2	1.85	0.58
58:DF:160:LYS:HD3	58:DF:161:SER:N	2.18	0.58
33:DL:48:ARG:HG3	33:DL:48:ARG:HH11	1.68	0.58
37:DP:102:ARG:O	37:DP:103:THR:HB	2.03	0.58
1:AA:275:G:N3	1:AA:276:G:C8	2.71	0.58
1:AA:885:G:H1'	1:AA:914:A:N1	2.18	0.58
1:AA:1234:C:C2	1:AA:1235:U:C6	2.91	0.58
2:AB:103:TRP:NE1	2:AB:150:ILE:HD11	2.18	0.58
4:AD:19:PHE:N	4:AD:19:PHE:CD1	2.72	0.58
9:AI:49:GLN:N	9:AI:50:PRO:HD2	2.17	0.58
11:AK:17:ASP:HB3	11:AK:80:ASN:OD1	2.02	0.58
11:AK:91:GLY:HA2	11:AK:94:SER:HB3	1.83	0.58
13:AM:2:ARG:HG3	13:AM:56:ARG:HH12	1.67	0.58
19:AS:52:ASN:O	19:AS:76:THR:HG22	2.03	0.58
22:BA:699:A:H1'	22:BA:1634:A:H2'	1.85	0.58
22:BA:805:G:OP2	33:BL:41:ARG:HD2	2.03	0.58
22:BA:958:U:H6	22:BA:958:U:C5'	2.05	0.58
22:BA:1071:G:C4	22:BA:1089:A:C6	2.91	0.58
22:BA:1184:U:C2'	22:BA:1185:G:O5'	2.50	0.58
22:BA:1268:A:C2	22:BA:2013:A:C4	2.90	0.58
22:BA:1821:A:H2'	22:BA:1822:C:C6	2.37	0.58
22:BA:1856:U:H3	22:BA:1886:U:H3	1.49	0.58
24:BC:12:ARG:CG	24:BC:12:ARG:NH1	2.59	0.58
25:BD:68:PHE:CD2	25:BD:75:ALA:HA	2.38	0.58
25:BD:97:SER:O	25:BD:99:GLU:CG	2.40	0.58
27:BF:4:HIS:CD2	27:BF:96:TRP:NE1	2.71	0.58
31:BJ:40:HIS:CD2	31:BJ:40:HIS:N	2.71	0.58
32:BK:34:GLY:O	32:BK:35:VAL:C	2.45	0.58
37:BP:104:GLY:O	37:BP:106:ALA:N	2.37	0.58
38:BQ:63:ARG:HH22	38:BQ:96:ASP:CA	2.15	0.58
42:BU:27:VAL:HG22	42:BU:28:LEU:N	2.18	0.58
51:B3:29:ARG:HA	62:B3:101:HOH:O	2.02	0.58
53:CA:147:G:H2'	53:CA:148:G:C8	2.38	0.58
53:CA:595:A:H4'	53:CA:596:A:OP1	2.02	0.58
53:CA:882:C:H41	12:CL:5:GLN:HE21	1.51	0.58
6:CF:47:LEU:CD1	6:CF:51:ILE:HD12	2.32	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:22:ALA:HB3	12:CL:94:TYR:OH	2.03	0.58
22:DA:232:G:C4'	22:DA:233:A:OP1	2.45	0.58
22:DA:513:A:H2'	22:DA:514:A:C8	2.38	0.58
22:DA:876:C:C2'	22:DA:877:A:OP1	2.51	0.58
22:DA:961:C:C5	22:DA:2031:A:C2	2.91	0.58
22:DA:1053:C:N4	22:DA:1054:A:N6	2.51	0.58
22:DA:1079:C:N3	22:DA:1088:A:H2	2.01	0.58
22:DA:1262:A:H2	48:D0:6:LYS:HD2	1.67	0.58
22:DA:1329:U:HO2'	22:DA:1330:C:P	2.25	0.58
22:DA:1723:G:O2'	22:DA:1724:G:H5'	2.03	0.58
22:DA:1826:G:OP2	24:DC:220:ARG:HB3	2.03	0.58
22:DA:1973:G:C6	22:DA:1974:C:N4	2.72	0.58
22:DA:2874:C:O2'	22:DA:2875:C:C6	2.53	0.58
26:DE:5:LEU:HD13	26:DE:122:GLU:HB2	1.84	0.58
26:DE:29:HIS:CA	26:DE:32:VAL:HG22	2.34	0.58
58:DF:131:VAL:C	58:DF:133:GLU:H	2.11	0.58
28:DG:152:ARG:HD2	28:DG:153:PRO:HD2	1.84	0.58
31:DJ:125:TYR:HE2	31:DJ:132:HIS:HD2	1.51	0.58
35:DN:36:THR:CG2	35:DN:41:ALA:HB2	2.33	0.58
35:DN:55:ALA:HA	35:DN:80:PHE:CE1	2.38	0.58
43:DV:29:ILE:CD1	43:DV:90:ASP:HA	2.33	0.58
46:DY:22:LEU:CD1	46:DY:23:ARG:NH1	2.66	0.58
1:AA:172:A:C5	1:AA:174:A:N7	2.72	0.58
1:AA:279:A:H5''	1:AA:281:G:C5'	2.33	0.58
1:AA:1468:A:C2'	1:AA:1469:C:C5'	2.75	0.58
9:AI:8:THR:O	9:AI:81:GLY:HA2	2.03	0.58
15:AO:67:ASP:OD1	15:AO:87:ARG:NH2	2.36	0.58
19:AS:4:LEU:CD2	19:AS:8:PRO:HA	2.31	0.58
19:AS:45:GLY:H	19:AS:61:VAL:HG23	1.67	0.58
22:BA:243:U:OP1	51:B3:5:THR:CG2	2.51	0.58
22:BA:457:A:O4'	22:BA:459:U:C6	2.56	0.58
22:BA:875:G:C2'	22:BA:876:C:H5'	2.33	0.58
22:BA:1588:G:C2	22:BA:1589:U:C6	2.92	0.58
22:BA:1760:C:H2'	22:BA:1761:C:O4'	2.03	0.58
22:BA:2321:U:C3'	22:BA:2322:A:C5'	2.81	0.58
22:BA:2444:G:P	26:BE:63:LYS:HD2	2.43	0.58
22:BA:2711:A:P	62:BA:3540:HOH:O	2.60	0.58
25:BD:74:GLU:O	25:BD:75:ALA:C	2.44	0.58
25:BD:105:LYS:H	25:BD:106:LYS:HD2	1.69	0.58
29:BH:147:VAL:CG1	29:BH:149:GLU:HG3	2.33	0.58
31:BJ:17:VAL:HG22	31:BJ:137:PRO:HB2	1.83	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:79:ALA:HA	36:BO:115:LEU:HD22	1.85	0.58
37:BP:33:GLU:N	37:BP:36:LYS:O	2.36	0.58
40:BS:13:SER:O	40:BS:14:ALA:HB2	2.02	0.58
40:BS:33:LEU:HD13	40:BS:51:LEU:HD23	1.84	0.58
53:CA:146:G:O2'	53:CA:147:G:H5'	2.03	0.58
53:CA:245:U:H6	53:CA:245:U:H5''	1.67	0.58
53:CA:1130:A:C5	53:CA:1146:A:C6	2.90	0.58
53:CA:1279:G:H2'	10:CJ:45:ARG:NH2	2.18	0.58
2:CB:37:VAL:HG22	2:CB:38:HIS:N	2.19	0.58
4:CD:24:VAL:HG23	4:CD:25:ARG:HB2	1.85	0.58
5:CE:131:ASN:HD22	5:CE:132:PRO:CD	2.16	0.58
5:CE:148:SER:H	5:CE:151:MET:CE	2.16	0.58
17:CQ:46:HIS:HB2	17:CQ:70:LYS:NZ	2.19	0.58
22:DA:33:C:H2'	22:DA:446:G:H22	1.68	0.58
22:DA:35:G:C5	22:DA:454:A:C2	2.91	0.58
22:DA:160:A:N1	22:DA:161:A:C2	2.71	0.58
22:DA:193:U:H4'	22:DA:802:A:O2'	2.04	0.58
22:DA:308:G:C6	22:DA:309:A:C6	2.92	0.58
22:DA:425:G:H2'	22:DA:426:C:H6	1.67	0.58
22:DA:873:C:C4'	34:DM:64:TRP:CD1	2.84	0.58
22:DA:1255:U:H3'	22:DA:1256:G:C5'	2.32	0.58
22:DA:1415:U:O3'	22:DA:1416:G:H4'	2.03	0.58
22:DA:2216:G:C2'	22:DA:2217:G:H8	2.16	0.58
22:DA:2226:C:H2'	22:DA:2227:A:H8	1.68	0.58
22:DA:2264:C:H41	44:DW:11:ASN:ND2	2.01	0.58
22:DA:2689:U:C4'	22:DA:2690:U:OP2	2.39	0.58
57:DB:69:G:N7	57:DB:70:C:C5	2.71	0.58
25:DD:159:LYS:HE2	25:DD:160:LYS:N	2.17	0.58
26:DE:126:VAL:HG22	26:DE:127:GLU:H	1.68	0.58
58:DF:137:PHE:HB2	58:DF:138:PRO:CD	2.22	0.58
38:DQ:50:ARG:HD2	38:DQ:50:ARG:N	2.19	0.58
47:DZ:23:LEU:HD21	47:DZ:53:MET:CE	2.32	0.58
50:D2:31:LEU:C	50:D2:34:ARG:HB2	2.27	0.58
1:AA:13:U:O2'	1:AA:14:U:H5'	2.03	0.58
1:AA:126:G:C2'	1:AA:127:G:O5'	2.52	0.58
1:AA:175:C:O2'	1:AA:176:C:C5'	2.52	0.58
1:AA:821:G:O2'	1:AA:822:U:H5'	2.03	0.58
3:AC:185:THR:HG22	3:AC:186:SER:N	2.18	0.58
4:AD:29:THR:HG22	4:AD:30:LYS:CD	2.33	0.58
6:AF:46:GLN:NE2	6:AF:56:LYS:HG3	2.18	0.58
7:AG:110:ARG:HB2	7:AG:110:ARG:HH11	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:63:LYS:C	8:AH:70:VAL:HG23	2.27	0.58
20:AT:25:SER:O	20:AT:28:ARG:HG3	2.03	0.58
22:BA:374:A:C2	22:BA:401:A:C4	2.91	0.58
22:BA:570:G:H2'	22:BA:2030:A:N7	2.19	0.58
22:BA:839:U:O2'	22:BA:1191:G:H1'	2.03	0.58
22:BA:1108:U:H2'	22:BA:1109:C:O4'	2.04	0.58
26:BE:148:ILE:HA	26:BE:187:VAL:HB	1.85	0.58
27:BF:68:LYS:HD2	27:BF:68:LYS:H	1.69	0.58
28:BG:104:LEU:O	28:BG:112:VAL:HG22	2.04	0.58
31:BJ:44:TYR:HA	38:BQ:59:LEU:HD21	1.86	0.58
32:BK:111:LYS:H	32:BK:111:LYS:CE	2.15	0.58
50:B2:42:LEU:H	50:B2:42:LEU:HD22	1.67	0.58
53:CA:68:G:H21	53:CA:152:A:H1'	1.64	0.58
53:CA:372:C:HO2'	53:CA:373:A:P	2.26	0.58
53:CA:979:C:O2'	53:CA:980:C:C5'	2.52	0.58
53:CA:1248:A:O2'	9:CI:37:TYR:HD1	1.86	0.58
3:CC:63:ILE:O	3:CC:63:ILE:HG23	2.02	0.58
4:CD:176:LYS:HG3	4:CD:178:GLU:CB	2.32	0.58
6:CF:4:TYR:O	6:CF:63:ASN:HA	2.04	0.58
54:CG:48:THR:O	54:CG:52:ARG:HD3	2.04	0.58
54:CG:129:ASN:OD1	54:CG:134:VAL:HG11	2.04	0.58
8:CH:1:SER:C	8:CH:3:GLN:N	2.61	0.58
11:CK:57:SER:C	11:CK:90:PRO:HG3	2.29	0.58
11:CK:90:PRO:O	11:CK:91:GLY:C	2.46	0.58
14:CN:55:SER:C	14:CN:57:SER:H	2.10	0.58
19:CS:62:THR:HG22	19:CS:63:ASP:N	2.17	0.58
22:DA:216:A:C4	22:DA:217:A:C8	2.91	0.58
22:DA:273:G:H2'	22:DA:274:C:H6	1.67	0.58
22:DA:305:C:C2	22:DA:313:G:C2	2.91	0.58
22:DA:322:A:H3'	26:DE:163:ASN:ND2	2.18	0.58
22:DA:531:C:H4'	22:DA:532:A:C8	2.37	0.58
22:DA:608:A:C5	22:DA:621:A:N7	2.72	0.58
22:DA:622:G:H2'	22:DA:623:C:C5	2.39	0.58
22:DA:764:A:C2	22:DA:781:A:C2	2.91	0.58
22:DA:1081:U:OP1	30:DI:126:ARG:HD2	2.03	0.58
22:DA:1281:G:C2'	22:DA:1282:U:H5'	2.33	0.58
22:DA:1307:A:H2'	22:DA:1308:A:C5'	2.34	0.58
22:DA:1342:A:C4	22:DA:1345:C:N4	2.71	0.58
22:DA:1343:G:O2'	22:DA:1344:U:H6	1.84	0.58
22:DA:1395:A:H4'	22:DA:1397:U:C5	2.38	0.58
22:DA:1594:U:H2'	22:DA:1595:C:C6	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1628:G:O2'	22:DA:1629:U:H5'	2.03	0.58
22:DA:1805:A:N3	24:DC:49:THR:HG22	2.18	0.58
22:DA:2096:C:O2'	22:DA:2097:A:H5'	2.04	0.58
57:DB:15:A:C8	57:DB:109:A:N6	2.71	0.58
57:DB:42:C:O2'	57:DB:43:C:C5'	2.50	0.58
25:DD:101:PHE:HE2	25:DD:205:PRO:HD3	1.67	0.58
30:DI:20:SER:OG	30:DI:25:PRO:HG2	2.03	0.58
31:DJ:43:GLU:O	31:DJ:45:THR:N	2.36	0.58
32:DK:13:ASN:HD21	32:DK:97:THR:N	1.99	0.58
35:DN:82:GLU:O	35:DN:85:PRO:HD2	2.03	0.58
36:DO:62:LEU:HD11	36:DO:65:THR:N	2.19	0.58
37:DP:88:ARG:HE	37:DP:112:ARG:HH21	1.52	0.58
42:DU:45:GLN:HA	42:DU:45:GLN:NE2	2.16	0.58
45:DX:29:LEU:HB2	45:DX:30:PRO:HD2	1.83	0.58
1:AA:57:G:C6	1:AA:356:A:N1	2.72	0.58
1:AA:411:A:H62	1:AA:413:G:N2	2.02	0.58
1:AA:1157:A:C5	1:AA:1180:A:C6	2.92	0.58
12:AL:28:GLN:HB2	12:AL:81:ILE:O	2.03	0.58
13:AM:1:ALA:HB3	13:AM:8:ILE:CG2	2.34	0.58
20:AT:60:GLN:HA	20:AT:60:GLN:NE2	2.18	0.58
22:BA:580:U:H2'	22:BA:581:C:C6	2.34	0.58
22:BA:1104:C:H2'	22:BA:1105:U:C6	2.38	0.58
22:BA:1223:G:P	39:BR:68:ARG:HH12	2.27	0.58
22:BA:1429:G:O2'	22:BA:1430:G:H5'	2.04	0.58
22:BA:2752:C:H2'	22:BA:2753:A:C8	2.37	0.58
26:BE:42:GLY:C	26:BE:43:THR:HG23	2.27	0.58
27:BF:47:LYS:HB3	27:BF:47:LYS:HZ3	1.68	0.58
29:BH:54:LEU:N	29:BH:57:LYS:HB3	2.17	0.58
34:BM:2:LEU:CD2	34:BM:69:PRO:HD2	2.31	0.58
44:BW:39:GLN:CG	44:BW:41:GLY:H	2.07	0.58
47:BZ:23:LEU:HD21	47:BZ:53:MET:HE2	1.84	0.58
53:CA:71:A:O2'	53:CA:72:A:O4'	2.20	0.58
53:CA:140:U:O2	53:CA:183:C:N4	2.36	0.58
53:CA:183:C:O2'	53:CA:184:G:C5'	2.51	0.58
53:CA:328:C:O2	53:CA:328:C:C2'	2.52	0.58
53:CA:996:A:N1	53:CA:1046:A:H5''	2.18	0.58
3:CC:96:VAL:HB	3:CC:97:PRO:HD2	1.84	0.58
6:CF:92:THR:HG22	6:CF:93:LYS:N	2.18	0.58
22:DA:271:G:C6	22:DA:272:A:N6	2.72	0.58
22:DA:1038:G:H2'	22:DA:1039:A:H5''	1.81	0.58
22:DA:1237:A:O2'	22:DA:1238:G:H4'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1398:C:HO2'	22:DA:1399:C:H6	1.50	0.58
22:DA:2629:U:H5''	22:DA:2630:G:OP1	2.04	0.58
26:DE:79:ARG:HG2	26:DE:80:SER:N	2.19	0.58
26:DE:149:ILE:HG23	26:DE:188:MET:HB2	1.84	0.58
29:DH:9:VAL:CG1	29:DH:10:ALA:N	2.66	0.58
30:DI:20:SER:N	30:DI:21:PRO:CD	2.66	0.58
34:DM:108:VAL:HG11	34:DM:112:LEU:HD12	1.84	0.58
50:D2:28:ARG:C	50:D2:30:VAL:H	2.11	0.58
51:D3:18:LYS:CG	51:D3:19:GLY:N	2.67	0.58
52:D4:1:MET:HB3	52:D4:34:LYS:HE3	1.85	0.58
1:AA:439:U:C2'	1:AA:440:C:C5'	2.77	0.58
1:AA:633:G:HO2'	1:AA:634:C:H5'	1.67	0.58
1:AA:877:G:N2	8:AH:1:SER:HB2	2.13	0.58
1:AA:1055:A:H1'	3:AC:155:ARG:NH2	2.17	0.58
5:AE:11:GLN:HE21	5:AE:11:GLN:CA	2.11	0.58
5:AE:24:VAL:O	5:AE:25:LYS:C	2.47	0.58
9:AI:89:TYR:HB2	9:AI:93:LEU:HD21	1.84	0.58
9:AI:128:LYS:CD	9:AI:129:ARG:H	2.16	0.58
10:AJ:17:LEU:HD21	10:AJ:96:VAL:HG22	1.84	0.58
22:BA:35:G:N2	22:BA:36:G:H1'	2.18	0.58
22:BA:42:A:H2'	22:BA:43:G:H5''	1.84	0.58
22:BA:269:C:H2'	22:BA:270:A:C5'	2.30	0.58
22:BA:796:C:OP1	26:BE:57:LYS:HE2	2.04	0.58
22:BA:1206:G:H2'	22:BA:1207:C:C6	2.38	0.58
22:BA:2507:C:H5''	22:BA:2508:G:OP2	2.04	0.58
34:BM:21:ALA:CB	34:BM:100:LYS:N	2.67	0.58
35:BN:103:ARG:CD	35:BN:110:MET:CE	2.74	0.58
44:BW:45:HIS:ND1	44:BW:45:HIS:N	2.52	0.58
53:CA:273:U:C2'	53:CA:274:A:H5'	2.33	0.58
53:CA:414:A:H2'	53:CA:415:A:H5''	1.84	0.58
53:CA:451:A:H61	53:CA:481:G:H5'	1.68	0.58
53:CA:878:A:C5	53:CA:879:C:C5	2.91	0.58
53:CA:1296:C:C4	53:CA:1297:G:N2	2.72	0.58
2:CB:184:ALA:O	2:CB:199:ILE:HG12	2.02	0.58
5:CE:68:ARG:O	5:CE:69:ASN:C	2.45	0.58
6:CF:99:ALA:O	6:CF:100:SER:CB	2.52	0.58
11:CK:27:ASN:H	11:CK:27:ASN:ND2	1.98	0.58
15:CO:69:LEU:HD13	15:CO:77:TYR:HB2	1.85	0.58
19:CS:36:ARG:O	19:CS:69:LYS:HD2	2.02	0.58
22:DA:155:A:C2	22:DA:172:A:C6	2.92	0.58
22:DA:183:C:O2'	22:DA:432:A:H1'	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:691:C:O2'	22:DA:692:C:H5'	2.03	0.58
22:DA:1352:U:C5	22:DA:1377:G:O6	2.56	0.58
22:DA:1521:G:C6	22:DA:1522:A:C6	2.92	0.58
22:DA:1533:C:H2'	22:DA:1534:U:H5'	1.85	0.58
22:DA:1657:U:OP2	25:DD:141:ARG:HG3	2.04	0.58
22:DA:2021:C:O2	22:DA:2021:C:H2'	2.03	0.58
25:DD:107:VAL:HG12	25:DD:109:VAL:CG2	2.32	0.58
58:DF:113:PHE:O	58:DF:114:ARG:CB	2.52	0.58
29:DH:73:ASN:O	29:DH:75:LEU:HD12	2.02	0.58
33:DL:63:LYS:HB3	51:D3:12:ARG:HD2	1.84	0.58
34:DM:94:ALA:O	34:DM:96:ILE:HG23	2.04	0.58
35:DN:90:ARG:CZ	35:DN:116:VAL:HG11	2.32	0.58
36:DO:31:THR:HG21	36:DO:36:TYR:HE2	1.67	0.58
37:DP:9:GLN:HA	37:DP:12:MET:HG3	1.85	0.58
50:D2:23:ALA:O	50:D2:24:THR:HB	2.03	0.58
1:AA:330:C:H5''	1:AA:330:C:C6	2.38	0.58
1:AA:518:C:H2'	1:AA:530:G:C8	2.39	0.58
1:AA:1305:G:N2	1:AA:1331:G:H2'	2.19	0.58
2:AB:9:LEU:CD2	2:AB:11:ALA:H	2.11	0.58
8:AH:58:LEU:HD13	8:AH:59:GLU:N	2.19	0.58
12:AL:43:LYS:HB2	12:AL:43:LYS:NZ	2.18	0.58
14:AN:46:LYS:C	14:AN:48:GLN:H	2.11	0.58
15:AO:16:ARG:O	15:AO:17:ASP:CB	2.52	0.58
15:AO:45:HIS:C	15:AO:46:LYS:HG3	2.28	0.58
16:AP:59:HIS:CE1	16:AP:63:GLN:HE22	2.21	0.58
22:BA:990:A:H8	22:BA:990:A:C5'	2.17	0.58
22:BA:1276:A:O2'	35:BN:20:MET:HE3	2.02	0.58
22:BA:1334:G:O2'	22:BA:1335:C:H5'	2.03	0.58
22:BA:1416:G:O2'	22:BA:1417:C:O5'	2.21	0.58
22:BA:2109:U:H2'	22:BA:2110:G:H5'	1.86	0.58
22:BA:2813:A:H2	22:BA:2887:A:H62	1.49	0.58
23:BB:30:C:C3'	23:BB:31:C:H5'	2.33	0.58
25:BD:70:LYS:O	25:BD:71:ALA:HB3	2.02	0.58
25:BD:93:GLY:O	25:BD:94:GLN:C	2.46	0.58
27:BF:42:ALA:HA	27:BF:45:ASP:O	2.04	0.58
29:BH:133:GLN:HA	29:BH:133:GLN:OE1	2.03	0.58
41:BT:26:LYS:O	41:BT:27:SER:HB2	2.03	0.58
41:BT:39:THR:H	41:BT:43:ILE:HG22	1.69	0.58
44:BW:58:LEU:N	44:BW:58:LEU:CD1	2.64	0.58
46:BY:32:ALA:HB2	46:BY:37:LEU:CD1	2.22	0.58
48:B0:9:ARG:CG	48:B0:9:ARG:NH2	2.66	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:68:G:O2'	53:CA:69:G:O5'	2.12	0.58
53:CA:181:A:H1'	53:CA:182:A:C2	2.39	0.58
53:CA:781:A:C2'	53:CA:782:A:H5'	2.32	0.58
53:CA:963:G:O2'	53:CA:964:A:H5'	2.04	0.58
2:CB:119:GLN:HG2	2:CB:119:GLN:O	2.03	0.58
2:CB:127:LYS:HE3	2:CB:132:GLU:HG3	1.86	0.58
3:CC:149:LYS:HG2	3:CC:167:TYR:O	2.04	0.58
6:CF:67:PRO:O	6:CF:69:GLU:N	2.36	0.58
12:CL:98:ARG:HB2	12:CL:116:TYR:HA	1.86	0.58
55:CM:86:ARG:NH1	55:CM:90:HIS:HD2	2.00	0.58
17:CQ:46:HIS:NE2	17:CQ:48:GLU:HG2	2.18	0.58
17:CQ:58:VAL:HB	17:CQ:74:LEU:CD1	2.34	0.58
22:DA:364:C:H2'	22:DA:365:U:C6	2.38	0.58
22:DA:747:U:H3'	22:DA:748:G:H5''	1.85	0.58
22:DA:788:A:O2'	50:D2:4:THR:HB	2.02	0.58
22:DA:849:A:H2'	22:DA:850:U:H6	1.69	0.58
22:DA:1087:G:C4	22:DA:1089:A:C2	2.91	0.58
22:DA:1208:C:C2	22:DA:1209:U:C5	2.92	0.58
22:DA:1737:G:C6	22:DA:1738:G:N1	2.72	0.58
22:DA:1760:C:H2'	22:DA:1761:C:O4'	2.04	0.58
22:DA:2550:G:C2	22:DA:2559:C:O2	2.56	0.58
22:DA:2577:A:C2	48:D0:1:ALA:N	2.71	0.58
22:DA:2881:U:H2'	22:DA:2882:A:C8	2.39	0.58
57:DB:78:A:C6	57:DB:99:A:C8	2.92	0.58
25:DD:39:ASP:OD1	25:DD:40:LEU:HD12	2.02	0.58
30:DI:48:ILE:HG13	30:DI:49:GLU:N	2.19	0.58
34:DM:34:LYS:HE2	34:DM:99:GLY:HA2	1.86	0.58
35:DN:9:GLN:HG2	35:DN:10:LEU:O	2.03	0.58
45:DX:76:LYS:HG3	45:DX:77:TYR:N	2.19	0.58
1:AA:198:G:C2'	1:AA:199:A:H8	2.17	0.58
1:AA:547:A:H4'	1:AA:548:G:O5'	2.04	0.58
1:AA:642:A:C5	8:AH:106:SER:HA	2.39	0.58
1:AA:1167:A:C8	1:AA:1169:A:C6	2.92	0.58
6:AF:92:THR:HG22	6:AF:93:LYS:N	2.19	0.58
7:AG:69:ARG:HG3	7:AG:95:ARG:CG	2.32	0.58
13:AM:79:LEU:HD22	13:AM:86:ARG:HB2	1.86	0.58
14:AN:40:ARG:NH2	14:AN:44:VAL:HG21	2.18	0.58
20:AT:33:LYS:HE2	20:AT:33:LYS:CA	2.33	0.58
22:BA:859:G:O2'	22:BA:916:G:O6	2.20	0.58
22:BA:1032:A:H1'	52:B4:23:ILE:CD1	2.33	0.58
22:BA:1497:U:H5''	22:BA:1498:C:OP2	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1965:C:H2'	22:BA:1966:A:C8	2.39	0.58
22:BA:2855:C:O5'	22:BA:2855:C:H6	1.87	0.58
28:BG:60:GLY:O	28:BG:61:TRP:CB	2.50	0.58
37:BP:77:SER:OG	37:BP:79:VAL:HG13	2.04	0.58
41:BT:39:THR:CB	41:BT:42:GLU:HB2	2.21	0.58
53:CA:892:A:C2'	53:CA:893:C:H5'	2.33	0.58
53:CA:1346:A:N6	54:CG:9:ARG:HH22	2.01	0.58
6:CF:9:MET:HE1	18:CR:64:LEU:O	2.04	0.58
9:CI:96:GLU:HA	9:CI:99:LYS:HE2	1.86	0.58
56:CP:77:GLU:C	56:CP:79:ASN:H	2.11	0.58
21:CU:35:GLU:CG	21:CU:36:PHE:N	2.63	0.58
22:DA:339:U:H2'	22:DA:340:A:C8	2.39	0.58
22:DA:1039:A:C5	22:DA:1040:A:C8	2.92	0.58
22:DA:1049:C:C5	22:DA:1050:A:N7	2.71	0.58
22:DA:1553:A:N7	22:DA:1555:G:C6	2.72	0.58
22:DA:1809:A:C2'	22:DA:1810:A:H8	2.17	0.58
22:DA:2637:U:C2'	22:DA:2638:G:H5'	2.32	0.58
22:DA:2645:G:H3'	22:DA:2646:C:H5''	1.85	0.58
22:DA:2850:A:C6	22:DA:2869:G:H4'	2.39	0.58
24:DC:70:LYS:HB2	24:DC:101:ARG:HH22	1.69	0.58
25:DD:53:GLY:HA3	25:DD:77:ARG:HG3	1.85	0.58
58:DF:45:ASP:OD2	58:DF:47:LYS:HB2	2.04	0.58
29:DH:50:ARG:HG3	29:DH:54:LEU:HG	1.86	0.58
29:DH:96:THR:HG22	29:DH:113:SER:OG	2.02	0.58
30:DI:105:LEU:HD21	30:DI:129:GLU:OE2	2.03	0.58
31:DJ:64:VAL:CG1	31:DJ:65:THR:H	2.17	0.58
33:DL:29:LYS:O	33:DL:30:THR:HG23	2.04	0.58
33:DL:90:VAL:HG12	33:DL:90:VAL:O	2.02	0.58
33:DL:123:ARG:HG2	33:DL:143:GLU:HB3	1.86	0.58
39:DR:31:GLU:HG2	39:DR:32:THR:H	1.69	0.58
41:DT:4:GLU:HG3	41:DT:6:ARG:HH21	1.67	0.58
42:DU:9:GLU:OE1	42:DU:23:LYS:HA	2.04	0.58
42:DU:73:ASN:CB	42:DU:95:PHE:HE2	2.17	0.58
52:D4:7:VAL:HG22	52:D4:25:VAL:CG2	2.33	0.58
1:AA:574:A:H5''	1:AA:575:G:OP2	2.04	0.58
1:AA:1081:A:C2'	1:AA:1082:A:H5'	2.34	0.58
1:AA:1323:G:O2'	1:AA:1324:A:H5'	2.03	0.58
2:AB:67:LEU:HB3	2:AB:160:LEU:HD12	1.85	0.58
4:AD:173:ASP:O	4:AD:174:ALA:CB	2.51	0.58
5:AE:82:HIS:NE2	8:AH:95:MET:HE2	2.19	0.58
7:AG:49:LEU:HD13	7:AG:49:LEU:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:295:G:C2	22:BA:296:U:C5	2.92	0.58
22:BA:1461:C:O2'	22:BA:1462:C:H5'	2.03	0.58
22:BA:1779:U:H2'	62:BA:3683:HOH:O	2.04	0.58
22:BA:1943:U:H4'	22:BA:1944:U:O5'	2.04	0.58
22:BA:2305:U:H2'	22:BA:2306:C:C6	2.39	0.58
24:BC:180:MET:CG	24:BC:268:ARG:NH1	2.63	0.58
26:BE:79:ARG:CG	26:BE:80:SER:H	2.02	0.58
35:BN:103:ARG:CD	35:BN:110:MET:HE3	2.22	0.58
41:BT:57:VAL:HG22	41:BT:58:VAL:N	2.18	0.58
47:BZ:9:THR:CG2	47:BZ:53:MET:C	2.77	0.58
53:CA:829:G:O2'	2:CB:24:PRO:HG3	2.03	0.58
2:CB:101:THR:O	2:CB:102:ASN:HB2	2.03	0.58
4:CD:191:SER:O	4:CD:192:ALA:HB2	2.04	0.58
5:CE:79:THR:HG23	5:CE:81:GLN:H	1.68	0.58
54:CG:100:MET:HA	54:CG:103:ILE:CG1	2.34	0.58
9:CI:105:ARG:NH1	9:CI:107:ALA:HA	2.17	0.58
12:CL:47:ALA:C	12:CL:48:LEU:HD23	2.29	0.58
15:CO:66:LEU:HB3	15:CO:77:TYR:HE1	1.68	0.58
18:CR:39:VAL:CG1	18:CR:40:PRO:HD2	2.34	0.58
19:CS:12:LEU:O	19:CS:12:LEU:HD13	2.04	0.58
22:DA:992:C:H4'	39:DR:74:ILE:CD1	2.34	0.58
22:DA:1038:G:C6	22:DA:1118:C:N4	2.72	0.58
22:DA:1379:U:O2	22:DA:1379:U:H2'	2.04	0.58
22:DA:1814:G:C6	22:DA:1815:A:N6	2.72	0.58
22:DA:1997:C:O2'	22:DA:1998:A:C5'	2.51	0.58
22:DA:2623:G:H4'	22:DA:2825:G:C8	2.37	0.58
22:DA:2721:A:H2'	22:DA:2722:G:C8	2.39	0.58
25:DD:107:VAL:H	25:DD:206:ALA:H	1.52	0.58
25:DD:138:LEU:N	25:DD:138:LEU:HD13	2.19	0.58
26:DE:108:ILE:O	26:DE:112:LEU:HB2	2.03	0.58
58:DF:32:LYS:HD2	58:DF:156:THR:HG21	1.86	0.58
28:DG:22:VAL:HG12	28:DG:23:ILE:N	2.19	0.58
28:DG:84:LYS:O	28:DG:85:LYS:CB	2.52	0.58
37:DP:48:ALA:HB3	37:DP:59:THR:OG1	2.03	0.58
37:DP:91:VAL:HG21	37:DP:96:LEU:HD21	1.86	0.58
37:DP:102:ARG:HB2	37:DP:107:ALA:HB2	1.85	0.58
40:DS:95:ARG:HG3	40:DS:97:LEU:HD22	1.85	0.58
46:DY:17:GLU:OE1	46:DY:53:VAL:HB	2.03	0.58
1:AA:1142:G:H2'	1:AA:1143:G:O4'	2.04	0.58
4:AD:64:TYR:CE1	4:AD:93:LEU:HD13	2.39	0.58
9:AI:10:ARG:HB2	9:AI:14:SER:O	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:33:CYS:CA	12:AL:54:VAL:HA	2.28	0.58
13:AM:105:ALA:O	13:AM:109:LYS:HB2	2.03	0.58
15:AO:32:THR:HG21	15:AO:84:LEU:HG	1.86	0.58
15:AO:57:ARG:HB3	15:AO:57:ARG:NH1	2.19	0.58
17:AQ:48:GLU:HA	17:AQ:48:GLU:OE1	2.02	0.58
17:AQ:60:ILE:CG2	17:AQ:72:TRP:HE3	2.16	0.58
22:BA:28:A:C2	22:BA:513:A:C8	2.92	0.58
22:BA:42:A:C3'	22:BA:43:G:H5''	2.34	0.58
22:BA:811:U:C2	22:BA:1251:C:C5	2.92	0.58
22:BA:1728:C:O2'	22:BA:1729:U:C6	2.56	0.58
22:BA:1789:A:OP2	24:BC:220:ARG:NH1	2.36	0.58
22:BA:2023:C:H5''	22:BA:2023:C:C6	2.38	0.58
22:BA:2454:G:C2'	22:BA:2455:G:H5'	2.34	0.58
22:BA:2680:U:OP2	25:BD:114:LYS:HE2	2.03	0.58
22:BA:2798:U:OP2	22:BA:2798:U:H2'	2.03	0.58
25:BD:151:THR:CB	25:BD:152:PRO:HD3	2.34	0.58
30:BI:48:ILE:HG13	30:BI:49:GLU:H	1.68	0.58
30:BI:123:ALA:C	30:BI:125:THR:H	2.10	0.58
31:BJ:58:ASN:HD21	31:BJ:128:ASN:HB2	1.69	0.58
38:BQ:57:ARG:HA	38:BQ:60:TRP:CE3	2.39	0.58
41:BT:39:THR:CG2	41:BT:39:THR:O	2.51	0.58
53:CA:84:U:H3	53:CA:87:C:H1'	1.69	0.58
53:CA:704:A:C2'	53:CA:705:G:C8	2.87	0.58
53:CA:1161:C:O2	53:CA:1176:A:C2	2.56	0.58
53:CA:1206:G:H4'	3:CC:191:THR:O	2.03	0.58
53:CA:1319:A:H5''	19:CS:4:LEU:CD1	2.33	0.58
19:CS:12:LEU:HD13	19:CS:12:LEU:C	2.29	0.58
22:DA:116:C:O2'	22:DA:117:G:H5'	2.03	0.58
22:DA:135:U:H2'	22:DA:136:G:C8	2.38	0.58
22:DA:564:C:O2'	22:DA:565:C:H5'	2.04	0.58
22:DA:936:A:O2'	22:DA:937:C:H5'	2.04	0.58
22:DA:1054:A:C4	22:DA:1055:G:H1'	2.39	0.58
22:DA:1558:C:H1'	22:DA:1560:G:N7	2.19	0.58
22:DA:1616:A:OP1	22:DA:1616:A:H8	1.86	0.58
22:DA:1825:U:OP1	24:DC:246:PRO:HG3	2.04	0.58
22:DA:2418:A:OP1	51:D3:44:ARG:HD3	2.04	0.58
22:DA:2517:C:HO2'	22:DA:2518:A:H3'	1.69	0.58
22:DA:2648:G:H2'	22:DA:2649:C:O4'	2.04	0.58
22:DA:2691:C:O2'	22:DA:2692:G:H5'	2.03	0.58
24:DC:170:TYR:HD2	24:DC:183:VAL:O	1.86	0.58
24:DC:259:ASN:C	24:DC:261:ARG:H	2.12	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:119:ALA:CB	25:DD:163:GLY:C	2.77	0.58
58:DF:147:ARG:HD2	58:DF:147:ARG:H	1.69	0.58
32:DK:40:LYS:NZ	32:DK:89:ASN:HD21	2.02	0.58
38:DQ:79:ILE:HD13	38:DQ:79:ILE:O	2.02	0.58
49:D1:34:GLU:HG3	49:D1:49:LYS:CB	2.34	0.58
1:AA:73:C:O2'	1:AA:74:A:C5'	2.52	0.57
1:AA:109:A:H3'	1:AA:110:C:H5'	1.85	0.57
1:AA:1151:A:H5''	10:AJ:44:THR:OG1	2.03	0.57
1:AA:1171:A:C2	1:AA:1172:C:C2	2.92	0.57
1:AA:1305:G:H21	1:AA:1332:A:H2	1.52	0.57
1:AA:1306:A:C2'	1:AA:1307:U:H5'	2.34	0.57
1:AA:1428:A:H2'	1:AA:1429:A:O4'	2.02	0.57
3:AC:56:ILE:HG12	3:AC:65:VAL:HG22	1.86	0.57
6:AF:38:ARG:HB3	6:AF:63:ASN:HB2	1.85	0.57
8:AH:98:LEU:HD23	8:AH:98:LEU:N	2.17	0.57
9:AI:90:ASP:CG	9:AI:92:SER:HB3	2.29	0.57
17:AQ:14:ASP:O	17:AQ:16:MET:HG2	2.04	0.57
22:BA:1416:G:O2'	22:BA:1417:C:C5'	2.52	0.57
22:BA:1655:A:N6	22:BA:2005:A:H1'	2.18	0.57
22:BA:1857:G:O2'	22:BA:1858:A:P	2.61	0.57
22:BA:1867:G:H2'	22:BA:1868:C:H5'	1.84	0.57
22:BA:2244:U:O2'	22:BA:2245:U:H5'	2.04	0.57
22:BA:2292:U:O2'	22:BA:2293:G:H5'	2.04	0.57
22:BA:2312:U:O2'	22:BA:2313:C:H5'	2.04	0.57
22:BA:2808:G:C2	22:BA:2891:U:C6	2.92	0.57
23:BB:41:G:H3'	23:BB:42:C:C5'	2.33	0.57
24:BC:49:THR:HG22	24:BC:50:THR:N	2.18	0.57
27:BF:72:SER:HB2	27:BF:80:GLN:N	2.18	0.57
27:BF:127:TYR:O	27:BF:128:SER:CB	2.52	0.57
36:BO:6:ALA:O	36:BO:10:ARG:HB2	2.04	0.57
45:BX:46:VAL:HG11	45:BX:77:TYR:CE1	2.39	0.57
50:B2:34:ARG:HH12	50:B2:39:ARG:HG2	1.67	0.57
53:CA:116:A:H2'	53:CA:117:G:C8	2.39	0.57
53:CA:164:G:H2'	53:CA:165:G:H5'	1.85	0.57
53:CA:344:A:H5''	53:CA:345:C:H5	1.68	0.57
53:CA:542:G:O2'	53:CA:543:U:H5'	2.04	0.57
53:CA:936:C:HO2'	53:CA:937:A:H8	0.71	0.57
53:CA:990:C:C2'	53:CA:991:U:O4'	2.49	0.57
53:CA:1416:G:C2'	53:CA:1417:G:H5'	2.34	0.57
53:CA:1513:A:H2'	53:CA:1514:G:H8	1.67	0.57
3:CC:133:MET:HE3	3:CC:152:VAL:HG13	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:92:THR:C	6:CF:93:LYS:HG2	2.28	0.57
54:CG:9:ARG:HD3	54:CG:24:LYS:HZ1	1.69	0.57
11:CK:63:GLN:HB2	11:CK:98:ALA:CB	2.33	0.57
11:CK:94:SER:O	11:CK:97:ARG:HB2	2.04	0.57
11:CK:107:THR:HG22	11:CK:108:ASN:N	2.18	0.57
17:CQ:59:GLU:HG3	17:CQ:59:GLU:O	2.04	0.57
21:CU:19:LYS:N	21:CU:19:LYS:NZ	2.52	0.57
22:DA:185:G:C5	22:DA:212:G:N2	2.71	0.57
22:DA:460:A:H5''	41:DT:72:GLN:O	2.03	0.57
22:DA:460:A:C6	22:DA:470:A:C8	2.92	0.57
22:DA:479:A:H4'	22:DA:480:A:O5'	2.03	0.57
22:DA:502:A:C5	22:DA:505:A:N7	2.72	0.57
22:DA:510:C:H6	22:DA:510:C:O5'	1.86	0.57
22:DA:600:G:O4'	26:DE:100:MET:HE3	2.03	0.57
22:DA:664:G:O2'	22:DA:665:U:H5'	2.03	0.57
22:DA:813:U:C6	22:DA:1195:G:N2	2.72	0.57
22:DA:1208:C:O2'	22:DA:1209:U:H5'	2.04	0.57
22:DA:1352:U:H5	22:DA:1377:G:C6	2.20	0.57
22:DA:1635:A:H5'	22:DA:1635:A:C8	2.38	0.57
22:DA:2361:G:H2'	22:DA:2362:C:H6	1.69	0.57
22:DA:2635:A:H5''	25:DD:79:LEU:O	2.04	0.57
24:DC:147:PRO:HA	24:DC:187:CYS:HB3	1.85	0.57
29:DH:84:ALA:CB	29:DH:148:ALA:HA	2.34	0.57
33:DL:56:PRO:O	33:DL:60:ARG:HG3	2.03	0.57
36:DO:71:ALA:CB	36:DO:102:ARG:HB3	2.33	0.57
37:DP:88:ARG:NH1	37:DP:112:ARG:HH21	2.01	0.57
40:DS:53:SER:O	40:DS:56:ALA:HB3	2.04	0.57
48:D0:37:HIS:HB3	48:D0:43:THR:HG22	1.84	0.57
49:D1:29:LYS:HE2	49:D1:31:GLU:OE2	2.04	0.57
1:AA:729:A:H2'	1:AA:730:G:O4'	2.04	0.57
1:AA:790:A:H2'	1:AA:791:G:C8	2.40	0.57
1:AA:1123:U:O3'	10:AJ:38:GLY:HA3	2.03	0.57
1:AA:1501:C:C5	1:AA:1504:G:C4	2.93	0.57
8:AH:95:MET:HB2	8:AH:98:LEU:O	2.03	0.57
14:AN:20:PHE:HA	14:AN:24:ALA:HB3	1.86	0.57
20:AT:55:PRO:HG2	20:AT:56:ILE:H	1.70	0.57
22:BA:550:C:H2'	22:BA:550:C:O2	2.03	0.57
22:BA:662:G:H2'	22:BA:663:G:H5'	1.85	0.57
22:BA:875:G:H2'	22:BA:876:C:H5'	1.85	0.57
22:BA:960:A:N7	22:BA:962:G:C8	2.72	0.57
22:BA:996:A:C2	22:BA:997:G:C8	2.92	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1725:U:H2'	22:BA:1726:C:C6	2.38	0.57
22:BA:1858:A:H2'	22:BA:1859:U:C6	2.39	0.57
22:BA:2006:C:O5'	22:BA:2006:C:H6	1.87	0.57
22:BA:2063:C:C2'	22:BA:2064:C:H5'	2.35	0.57
26:BE:119:ILE:HD11	26:BE:187:VAL:CA	2.27	0.57
31:BJ:140:LEU:CD1	31:BJ:140:LEU:C	2.77	0.57
32:BK:113:MET:O	32:BK:116:ILE:HG13	2.04	0.57
33:BL:57:LEU:HD11	33:BL:61:LEU:HD21	1.85	0.57
34:BM:1:MET:O	34:BM:2:LEU:CB	2.52	0.57
34:BM:62:LYS:HD3	34:BM:64:TRP:CZ2	2.39	0.57
41:BT:68:LYS:O	41:BT:69:ARG:O	2.22	0.57
41:BT:73:ARG:NH2	41:BT:74:ILE:H	2.02	0.57
43:BV:61:LEU:O	43:BV:71:LYS:HA	2.04	0.57
44:BW:24:ARG:HD2	44:BW:25:PHE:CA	2.33	0.57
46:BY:18:LEU:HD13	46:BY:22:LEU:HB2	1.85	0.57
48:B0:24:VAL:C	48:B0:25:THR:HG23	2.28	0.57
53:CA:295:C:C4	53:CA:296:U:C5	2.92	0.57
53:CA:362:G:OP1	12:CL:57:THR:CG2	2.52	0.57
53:CA:769:G:H4'	53:CA:1513:A:H4'	1.84	0.57
53:CA:994:A:C6	53:CA:1216:A:C5'	2.87	0.57
53:CA:1226:C:C4	55:CM:102:LYS:HA	2.38	0.57
53:CA:1239:A:O2'	53:CA:1241:G:C5	2.52	0.57
54:CG:91:ARG:NE	54:CG:92:PRO:HD2	2.19	0.57
55:CM:12:LYS:HE3	55:CM:12:LYS:CA	2.27	0.57
15:CO:69:LEU:HD13	15:CO:69:LEU:O	2.04	0.57
17:CQ:29:LYS:HE2	17:CQ:36:PHE:CE1	2.39	0.57
18:CR:25:ILE:O	18:CR:25:ILE:HG13	2.04	0.57
22:DA:143:C:O2'	22:DA:144:A:O4'	2.21	0.57
22:DA:227:A:H61	22:DA:410:G:H1'	1.69	0.57
22:DA:300:A:C5	22:DA:334:C:H4'	2.38	0.57
22:DA:803:U:C2'	22:DA:804:A:H5'	2.34	0.57
22:DA:807:U:H1'	22:DA:2445:G:H5'	1.85	0.57
22:DA:1328:A:H3'	22:DA:1330:C:H41	1.67	0.57
22:DA:1437:C:H2'	22:DA:1438:U:C6	2.40	0.57
22:DA:1439:A:C8	22:DA:1439:A:H3'	2.39	0.57
22:DA:1800:C:C2	22:DA:1802:A:C8	2.93	0.57
22:DA:2331:G:H1'	44:DW:40:ARG:CB	2.34	0.57
22:DA:2577:A:H2	48:D0:1:ALA:N	2.01	0.57
22:DA:2746:U:H1'	28:DG:138:GLN:HE21	1.69	0.57
26:DE:147:LEU:HB3	26:DE:186:VAL:HG23	1.85	0.57
35:DN:1:MET:HE3	35:DN:3:HIS:CE1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:65:LEU:H	35:DN:65:LEU:HD12	1.68	0.57
37:DP:30:TRP:HD1	37:DP:39:LEU:HD12	1.68	0.57
37:DP:54:LEU:HA	37:DP:76:HIS:CD2	2.39	0.57
42:DU:91:LYS:O	42:DU:92:VAL:HG22	2.04	0.57
43:DV:56:PHE:C	43:DV:58:SER:H	2.10	0.57
51:D3:31:ILE:HG21	51:D3:34:LYS:NZ	2.19	0.57
1:AA:701:U:O2	1:AA:701:U:C2'	2.52	0.57
1:AA:862:C:H2'	1:AA:863:U:H5'	1.85	0.57
3:AC:146:LYS:HB2	3:AC:202:PHE:CD2	2.39	0.57
4:AD:113:ALA:O	4:AD:116:LEU:HB2	2.04	0.57
6:AF:38:ARG:HH11	6:AF:38:ARG:HG2	1.69	0.57
13:AM:39:ALA:HB3	13:AM:42:VAL:CG2	2.34	0.57
22:BA:189:G:OP1	45:BX:25:LYS:HD2	2.04	0.57
22:BA:479:A:HO2'	22:BA:481:G:H5'	1.69	0.57
22:BA:1374:G:C5	22:BA:1375:U:C5	2.92	0.57
22:BA:1655:A:H5'	25:BD:118:PHE:CD2	2.39	0.57
22:BA:1731:G:C4	22:BA:1733:G:N7	2.72	0.57
22:BA:2051:A:OP2	62:BA:3480:HOH:O	2.17	0.57
22:BA:2134:A:C6	22:BA:2135:A:N6	2.72	0.57
22:BA:2407:A:H2'	22:BA:2408:U:C6	2.40	0.57
22:BA:2429:G:P	62:BA:3692:HOH:O	2.62	0.57
22:BA:2840:C:H2'	22:BA:2841:C:C6	2.38	0.57
34:BM:69:PRO:HA	34:BM:94:ALA:HB2	1.85	0.57
35:BN:117:ASP:O	35:BN:118:ARG:CB	2.52	0.57
36:BO:2:ASP:O	36:BO:3:LYS:CB	2.52	0.57
36:BO:31:THR:CG2	36:BO:34:HIS:N	2.64	0.57
37:BP:24:THR:HG21	37:BP:87:ARG:HB3	1.87	0.57
41:BT:39:THR:CG2	41:BT:42:GLU:H	2.18	0.57
43:BV:80:HIS:HD2	43:BV:83:LYS:CB	2.17	0.57
53:CA:72:A:OP1	53:CA:72:A:H4'	2.02	0.57
53:CA:109:A:C8	53:CA:327:A:O4'	2.58	0.57
4:CD:53:GLN:CB	4:CD:202:LEU:HD12	2.34	0.57
6:CF:88:MET:HE3	6:CF:90:MET:CE	2.33	0.57
55:CM:13:HIS:HB3	55:CM:16:ILE:CB	2.34	0.57
55:CM:113:LYS:OXT	55:CM:113:LYS:HD3	2.03	0.57
22:DA:100:U:H1'	22:DA:101:A:N7	2.20	0.57
22:DA:117:G:C6	22:DA:119:A:C6	2.92	0.57
22:DA:136:G:N2	22:DA:144:A:C2	2.72	0.57
22:DA:396:G:O2'	22:DA:397:U:C6	2.53	0.57
22:DA:489:G:C5	22:DA:491:G:C5	2.92	0.57
22:DA:532:A:N3	22:DA:532:A:H2'	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:560:C:H1'	38:DQ:47:ARG:NH1	2.19	0.57
22:DA:1062:G:H8	22:DA:1070:A:OP2	1.88	0.57
22:DA:1213:A:O2'	22:DA:1214:A:C5'	2.51	0.57
22:DA:1329:U:O2'	22:DA:1330:C:P	2.62	0.57
22:DA:1427:A:C2	22:DA:1570:A:OP2	2.58	0.57
22:DA:1685:C:O2'	22:DA:1686:C:H5'	2.04	0.57
22:DA:1847:A:O2'	22:DA:1848:A:H8	1.81	0.57
22:DA:2426:A:H3'	22:DA:2427:C:H5'	1.86	0.57
22:DA:2456:C:C2'	22:DA:2457:U:H5'	2.34	0.57
22:DA:2599:G:OP2	24:DC:234:GLY:HA2	2.04	0.57
24:DC:119:VAL:HG13	24:DC:133:ASN:ND2	2.19	0.57
25:DD:137:SER:CA	25:DD:138:LEU:HD22	2.34	0.57
26:DE:148:ILE:HD13	26:DE:187:VAL:CG2	2.08	0.57
28:DG:116:LEU:HD13	28:DG:120:ILE:O	2.04	0.57
30:DI:112:LYS:NZ	30:DI:128:ILE:HD12	2.19	0.57
31:DJ:64:VAL:CG1	31:DJ:65:THR:N	2.67	0.57
37:DP:1:SER:OG	37:DP:4:ILE:HD12	2.04	0.57
44:DW:23:LYS:CD	44:DW:24:ARG:N	2.61	0.57
50:D2:5:PHE:HZ	50:D2:12:ARG:NH1	2.02	0.57
1:AA:8:A:N6	4:AD:201:GLU:O	2.37	0.57
1:AA:858:G:C2'	1:AA:859:G:H5'	2.34	0.57
1:AA:895:G:H2'	1:AA:896:C:H6	1.70	0.57
1:AA:1039:G:O2'	1:AA:1040:U:H5'	2.03	0.57
1:AA:1367:C:H5'	10:AJ:62:ARG:NH1	2.20	0.57
4:AD:1:ALA:O	4:AD:67:LEU:CD1	2.52	0.57
4:AD:104:MET:CG	4:AD:170:LEU:HD22	2.32	0.57
6:AF:11:HIS:HD2	6:AF:13:ASP:H	1.52	0.57
7:AG:108:ARG:HH21	7:AG:118:ARG:HH22	1.50	0.57
8:AH:31:LEU:HD12	8:AH:31:LEU:O	2.04	0.57
13:AM:89:ARG:HB3	13:AM:96:VAL:HG22	1.86	0.57
22:BA:28:A:C5	22:BA:513:A:N7	2.72	0.57
22:BA:114:U:H2'	22:BA:115:C:C6	2.39	0.57
22:BA:616:A:O2'	22:BA:617:G:C5'	2.51	0.57
22:BA:1078:U:H4'	22:BA:1079:C:C6	2.38	0.57
22:BA:1754:A:C6	22:BA:1755:A:C6	2.93	0.57
22:BA:2188:U:O2'	22:BA:2189:U:H5'	2.03	0.57
22:BA:2394:C:OP2	51:B3:29:ARG:HD3	2.03	0.57
22:BA:2748:A:O3'	28:BG:3:VAL:HG11	2.04	0.57
22:BA:2828:G:O2'	22:BA:2829:A:H5'	2.04	0.57
23:BB:24:G:N7	23:BB:56:G:H2'	2.17	0.57
24:BC:219:VAL:HG12	24:BC:224:MET:HE2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:23:PHE:CZ	26:BE:28:VAL:HG11	2.39	0.57
27:BF:34:THR:CG2	27:BF:89:THR:HG23	2.31	0.57
30:BI:53:PRO:O	30:BI:74:PRO:HD2	2.04	0.57
33:BL:40:SER:O	33:BL:41:ARG:HB2	2.03	0.57
33:BL:79:LEU:HB2	33:BL:114:GLY:O	2.03	0.57
44:BW:30:VAL:HG23	44:BW:59:PHE:HD1	1.70	0.57
53:CA:9:G:H2'	53:CA:10:A:H8	1.70	0.57
53:CA:72:A:H61	53:CA:99:C:H1'	1.69	0.57
53:CA:220:G:O2'	53:CA:221:C:H5'	2.03	0.57
2:CB:59:ILE:HD12	2:CB:59:ILE:C	2.28	0.57
3:CC:12:GLY:C	3:CC:13:ILE:HD13	2.27	0.57
5:CE:37:VAL:HG12	5:CE:38:VAL:N	2.20	0.57
6:CF:43:GLY:HA2	6:CF:58:HIS:ND1	2.19	0.57
9:CI:74:GLN:O	9:CI:78:ILE:HG13	2.04	0.57
10:CJ:11:LYS:HB3	10:CJ:71:LEU:CD1	2.34	0.57
22:DA:28:A:O2'	22:DA:29:U:C5'	2.49	0.57
22:DA:391:A:O2'	22:DA:392:U:C5'	2.52	0.57
22:DA:529:A:C8	22:DA:2023:C:N4	2.72	0.57
22:DA:571:U:C5	22:DA:575:A:C6	2.92	0.57
22:DA:585:G:C2'	22:DA:1254:A:H61	2.17	0.57
22:DA:648:G:H2'	22:DA:649:G:H8	1.69	0.57
22:DA:999:U:H2'	22:DA:1000:A:H5'	1.85	0.57
22:DA:1417:C:H4'	22:DA:1587:G:N2	2.19	0.57
22:DA:1490:A:N3	22:DA:1490:A:H5'	2.18	0.57
22:DA:2015:A:C5	48:D0:2:VAL:HG11	2.39	0.57
22:DA:2234:G:C5	22:DA:2235:G:C8	2.92	0.57
22:DA:2345:G:C6	22:DA:2347:C:N4	2.71	0.57
22:DA:2443:C:O2'	22:DA:2444:G:H5'	2.04	0.57
57:DB:96:G:C5	57:DB:97:C:C5	2.92	0.57
24:DC:76:VAL:O	24:DC:76:VAL:HG23	2.04	0.57
24:DC:120:ASP:CG	24:DC:121:ALA:N	2.63	0.57
29:DH:68:ARG:O	29:DH:68:ARG:HD2	2.05	0.57
30:DI:102:ARG:HG2	30:DI:141:ASP:O	2.04	0.57
32:DK:14:SER:OG	32:DK:51:LYS:N	2.37	0.57
35:DN:5:LYS:CG	35:DN:6:SER:H	2.17	0.57
37:DP:25:VAL:HA	37:DP:85:VAL:HA	1.84	0.57
39:DR:37:GLU:HB2	39:DR:53:PHE:CD2	2.40	0.57
40:DS:13:SER:O	40:DS:17:VAL:HG23	2.05	0.57
43:DV:51:GLN:HA	43:DV:56:PHE:CD2	2.39	0.57
52:D4:7:VAL:CG2	52:D4:25:VAL:HG23	2.34	0.57
1:AA:275:G:HO2'	1:AA:276:G:H5'	1.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:397:A:N7	1:AA:547:A:O2'	2.35	0.57
1:AA:497:G:N2	1:AA:498:A:C6	2.73	0.57
1:AA:1001:C:H2'	1:AA:1002:G:H8	1.70	0.57
3:AC:155:ARG:HG2	3:AC:159:ALA:O	2.05	0.57
5:AE:59:ILE:O	5:AE:62:ALA:HB3	2.04	0.57
6:AF:92:THR:C	6:AF:93:LYS:HG2	2.30	0.57
12:AL:45:ASN:N	12:AL:45:ASN:HD22	2.01	0.57
12:AL:115:LYS:O	12:AL:116:TYR:CB	2.53	0.57
17:AQ:25:GLU:HA	17:AQ:25:GLU:OE1	2.05	0.57
17:AQ:71:SER:O	17:AQ:72:TRP:CD1	2.58	0.57
22:BA:137:U:C5	22:BA:137:U:OP2	2.57	0.57
22:BA:192:C:O5'	22:BA:192:C:H6	1.86	0.57
22:BA:960:A:C8	22:BA:962:G:C8	2.92	0.57
22:BA:996:A:H4'	38:BQ:91:ARG:HG2	1.85	0.57
22:BA:2364:C:O2'	22:BA:2365:G:H5'	2.04	0.57
22:BA:2672:U:H2'	22:BA:2673:G:O5'	2.05	0.57
23:BB:49:C:OP1	36:BO:101:GLY:HA3	2.04	0.57
25:BD:159:LYS:HZ2	25:BD:159:LYS:CA	2.17	0.57
28:BG:117:PRO:HD2	28:BG:120:ILE:CG2	2.34	0.57
32:BK:71:ARG:HB3	32:BK:72:PRO:CD	2.30	0.57
35:BN:57:THR:O	35:BN:57:THR:HG22	2.05	0.57
39:BR:67:GLY:C	39:BR:93:PHE:CE2	2.82	0.57
42:BU:73:ASN:C	42:BU:75:ALA:H	2.12	0.57
46:BY:6:LEU:O	46:BY:7:ARG:HB3	2.05	0.57
53:CA:66:A:N6	53:CA:67:C:N4	2.52	0.57
53:CA:257:G:C2	53:CA:270:A:N1	2.73	0.57
53:CA:280:C:H4'	53:CA:281:G:OP2	2.04	0.57
53:CA:1239:A:H3'	54:CG:118:ARG:NH2	2.19	0.57
53:CA:1319:A:H5''	19:CS:4:LEU:HD11	1.85	0.57
53:CA:1370:G:C5'	9:CI:110:VAL:HG21	2.35	0.57
11:CK:78:ILE:H	11:CK:78:ILE:CD1	2.02	0.57
22:DA:340:A:H2'	22:DA:341:C:O4'	2.04	0.57
22:DA:404:A:N3	22:DA:406:G:C6	2.73	0.57
22:DA:558:U:OP2	31:DJ:113:PRO:HG2	2.04	0.57
22:DA:659:G:C5'	26:DE:95:LYS:HD2	2.34	0.57
22:DA:673:C:H5''	26:DE:75:SER:HB2	1.85	0.57
22:DA:1055:G:H2'	22:DA:1056:G:H5'	1.85	0.57
22:DA:2443:C:C2'	22:DA:2444:G:H5'	2.34	0.57
22:DA:2574:G:O2'	25:DD:148:GLN:HB2	2.05	0.57
22:DA:2635:A:H5'	25:DD:79:LEU:HB2	1.87	0.57
35:DN:33:ILE:HD13	35:DN:118:ARG:NH2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DO:25:ARG:HB3	36:DO:93:ASP:HB2	1.85	0.57
38:DQ:8:ILE:HG12	38:DQ:8:ILE:O	2.05	0.57
41:DT:45:ALA:HA	41:DT:48:GLN:HG2	1.85	0.57
44:DW:45:HIS:HB3	44:DW:58:LEU:HD11	1.87	0.57
1:AA:516:U:O2'	1:AA:517:G:H5'	2.05	0.57
1:AA:1049:U:H4'	1:AA:1050:G:OP2	2.04	0.57
1:AA:1180:A:H5''	1:AA:1181:G:OP2	2.05	0.57
1:AA:1432:G:O2'	1:AA:1433:A:OP2	2.22	0.57
4:AD:96:ARG:HB3	4:AD:98:ASP:OD1	2.04	0.57
4:AD:97:LEU:HD22	4:AD:117:VAL:HG11	1.86	0.57
13:AM:3:ILE:HA	13:AM:56:ARG:CZ	2.33	0.57
16:AP:78:VAL:HG22	16:AP:78:VAL:O	2.04	0.57
22:BA:62:U:C4'	22:BA:63:A:OP1	2.53	0.57
22:BA:141:G:N1	41:BT:2:ILE:CG2	2.67	0.57
22:BA:182:A:C6	22:BA:183:C:C4	2.93	0.57
22:BA:580:U:O3'	38:BQ:30:VAL:HG13	2.04	0.57
22:BA:1061:U:H3'	22:BA:1062:G:C5'	2.34	0.57
22:BA:1249:U:H5'	22:BA:1249:U:H6	1.69	0.57
22:BA:1286:A:O2'	22:BA:1288:G:OP2	2.21	0.57
22:BA:2136:G:C2'	22:BA:2137:U:C5	2.87	0.57
22:BA:2233:U:H2'	22:BA:2234:G:H8	1.68	0.57
22:BA:2264:C:H41	44:BW:11:ASN:ND2	2.02	0.57
22:BA:2365:G:C2'	22:BA:2366:A:C8	2.88	0.57
22:BA:2555:U:H5''	22:BA:2556:C:OP2	2.05	0.57
25:BD:51:THR:OG1	25:BD:76:GLY:HA3	2.03	0.57
26:BE:194:LYS:O	26:BE:197:GLU:HB3	2.04	0.57
29:BH:41:LYS:HA	29:BH:44:ILE:HG12	1.87	0.57
31:BJ:49:ASP:OD1	31:BJ:121:LYS:HE2	2.04	0.57
31:BJ:97:PRO:C	31:BJ:99:ARG:N	2.61	0.57
37:BP:33:GLU:HB2	37:BP:38:ARG:HH11	1.70	0.57
42:BU:27:VAL:HG22	42:BU:28:LEU:H	1.70	0.57
42:BU:35:VAL:HG12	42:BU:38:ILE:CG1	2.35	0.57
43:BV:68:LYS:O	43:BV:69:GLU:C	2.47	0.57
49:B1:42:VAL:CG1	49:B1:44:GLN:HB2	2.34	0.57
53:CA:571:U:H5''	53:CA:572:A:OP2	2.04	0.57
53:CA:1005:A:C4	53:CA:1006:G:H1'	2.39	0.57
53:CA:1049:U:H4'	53:CA:1050:G:OP2	2.04	0.57
53:CA:1363:A:C5	53:CA:1365:G:C6	2.92	0.57
3:CC:133:MET:HB2	3:CC:150:VAL:HG21	1.85	0.57
10:CJ:42:LEU:HD22	10:CJ:71:LEU:HD23	1.84	0.57
11:CK:126:ARG:HA	11:CK:126:ARG:HE	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:89:LEU:CB	12:CL:92:VAL:HG21	2.34	0.57
56:CP:26:ASN:OD1	56:CP:31:ARG:HB3	2.05	0.57
22:DA:323:C:H2'	26:DE:163:ASN:CG	2.29	0.57
22:DA:345:A:O2'	22:DA:346:A:C2	2.58	0.57
22:DA:480:A:H3'	22:DA:481:G:H5''	1.84	0.57
22:DA:627:A:O2'	22:DA:628:G:O5'	2.23	0.57
22:DA:716:A:H3'	22:DA:717:C:H5''	1.85	0.57
22:DA:730:A:H2'	22:DA:731:C:C6	2.39	0.57
22:DA:1008:A:OP1	22:DA:1008:A:H8	1.88	0.57
22:DA:1075:C:O2'	22:DA:1076:C:H6	1.87	0.57
22:DA:1544:A:C6	22:DA:1545:A:C6	2.92	0.57
22:DA:1638:C:H4'	22:DA:2710:C:O2	2.05	0.57
22:DA:1857:G:C4	22:DA:1884:G:N1	2.72	0.57
22:DA:2296:U:C4'	22:DA:2297:A:OP1	2.30	0.57
22:DA:2548:U:H2'	22:DA:2549:G:O4'	2.05	0.57
22:DA:2757:A:OP1	52:D4:20:ASP:N	2.38	0.57
25:DD:118:PHE:CG	25:DD:119:ALA:N	2.72	0.57
58:DF:103:ILE:HD12	58:DF:103:ILE:N	2.20	0.57
28:DG:94:ARG:NH2	28:DG:111:PRO:HB3	2.20	0.57
44:DW:43:LYS:HD2	44:DW:79:ILE:HD11	1.86	0.57
45:DX:26:ARG:HG3	45:DX:27:ARG:N	2.18	0.57
45:DX:63:ILE:CD1	45:DX:64:ASP:N	2.61	0.57
49:D1:5:ARG:HD2	49:D1:25:ASN:HB2	1.86	0.57
1:AA:337:G:O2'	1:AA:338:A:H5'	2.05	0.57
1:AA:620:C:H2'	1:AA:621:A:O4'	2.04	0.57
1:AA:844:G:H2'	1:AA:844:G:N3	2.19	0.57
2:AB:58:LYS:HZ2	2:AB:62:ARG:HG3	1.69	0.57
5:AE:108:GLY:O	5:AE:109:ALA:HB3	2.05	0.57
5:AE:152:VAL:HA	5:AE:155:LYS:NZ	2.19	0.57
5:AE:155:LYS:CB	8:AH:70:VAL:HG13	2.34	0.57
8:AH:46:GLU:O	8:AH:47:ASP:HB3	2.05	0.57
10:AJ:87:LEU:HD13	10:AJ:88:MET:N	2.19	0.57
13:AM:15:VAL:HA	13:AM:33:LEU:CD1	2.34	0.57
18:AR:70:THR:OG1	18:AR:72:ARG:HG2	2.05	0.57
22:BA:637:A:H4'	22:BA:638:G:O5'	2.05	0.57
22:BA:1027:A:N1	22:BA:1126:A:H1'	2.19	0.57
22:BA:1083:U:H2'	22:BA:1084:A:O5'	2.05	0.57
22:BA:1579:A:O2'	22:BA:1580:A:H5'	2.04	0.57
22:BA:1922:G:H2'	22:BA:1923:U:O4'	2.05	0.57
22:BA:2765:A:N3	22:BA:2765:A:C2'	2.67	0.57
22:BA:2817:U:O2	22:BA:2836:U:H1'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:73:ILE:O	26:BE:73:ILE:HG12	2.03	0.57
27:BF:129:MET:HE2	27:BF:153:ILE:CD1	2.15	0.57
28:BG:168:VAL:HG23	28:BG:168:VAL:O	2.04	0.57
35:BN:61:ALA:O	35:BN:64:ARG:HB2	2.05	0.57
37:BP:92:ARG:HH11	37:BP:92:ARG:HB2	1.69	0.57
52:B4:15:LYS:O	52:B4:16:ILE:C	2.47	0.57
52:B4:26:ILE:HD13	52:B4:26:ILE:N	2.19	0.57
53:CA:895:G:C5	53:CA:896:C:C5	2.93	0.57
53:CA:914:A:O2'	53:CA:915:A:O4'	2.19	0.57
2:CB:114:LYS:HE2	2:CB:151:LYS:HD3	1.87	0.57
3:CC:5:HIS:NE2	3:CC:183:TYR:CE2	2.68	0.57
5:CE:130:THR:HA	5:CE:135:VAL:CG2	2.35	0.57
9:CI:46:VAL:O	9:CI:79:ARG:HG3	2.05	0.57
10:CJ:79:PRO:HA	10:CJ:84:VAL:HG11	1.87	0.57
11:CK:117:HIS:O	11:CK:118:ASN:HB2	2.03	0.57
18:CR:32:ILE:HD12	18:CR:33:THR:O	2.04	0.57
18:CR:59:LYS:O	18:CR:63:TYR:CD1	2.58	0.57
22:DA:17:G:H4'	38:DQ:24:TYR:CE1	2.39	0.57
22:DA:92:U:H2'	22:DA:93:G:C8	2.40	0.57
22:DA:467:G:H4'	22:DA:796:C:O2'	2.04	0.57
22:DA:518:G:H2'	22:DA:519:U:H6	1.68	0.57
22:DA:747:U:O2	22:DA:2014:A:H1'	2.05	0.57
22:DA:1178:C:H2'	22:DA:1179:G:O4'	2.05	0.57
22:DA:1204:A:O4'	22:DA:1206:G:C5	2.58	0.57
22:DA:1439:A:H3'	22:DA:1439:A:H8	1.68	0.57
22:DA:1774:C:O2	24:DC:10:PRO:HB2	2.04	0.57
22:DA:2022:U:O2'	22:DA:2617:U:H5'	2.04	0.57
22:DA:2151:U:H2'	22:DA:2152:G:H8	1.70	0.57
22:DA:2330:G:H2'	22:DA:2331:G:H5'	1.86	0.57
22:DA:2728:U:O2'	22:DA:2729:G:H8	1.88	0.57
25:DD:34:VAL:HG12	25:DD:48:ILE:CD1	2.21	0.57
26:DE:79:ARG:O	26:DE:80:SER:C	2.47	0.57
29:DH:72:ILE:HD11	29:DH:141:LYS:N	2.17	0.57
32:DK:2:ILE:HD12	32:DK:2:ILE:N	2.19	0.57
44:DW:81:ILE:HD12	44:DW:82:GLU:N	2.19	0.57
45:DX:44:ARG:HB3	45:DX:44:ARG:NH1	2.19	0.57
47:DZ:43:ILE:HD12	47:DZ:44:ARG:N	2.20	0.57
1:AA:115:G:H4'	1:AA:116:A:O5'	2.03	0.57
1:AA:164:G:C2'	1:AA:165:G:H5'	2.35	0.57
1:AA:428:G:H1'	1:AA:430:A:C8	2.40	0.57
1:AA:968:A:H8	1:AA:968:A:OP1	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:969:A:O2'	1:AA:970:C:H5'	2.04	0.57
1:AA:1358:U:H5	1:AA:1359:C:C4	2.23	0.57
1:AA:1358:U:H6	1:AA:1359:C:C5	2.23	0.57
2:AB:153:MET:HE1	2:AB:157:PRO:HG3	1.86	0.57
5:AE:132:PRO:HG2	5:AE:133:ILE:HD12	1.86	0.57
9:AI:6:TYR:O	9:AI:85:ALA:HA	2.04	0.57
16:AP:20:VAL:HG21	16:AP:32:PHE:CB	2.35	0.57
16:AP:75:ILE:C	16:AP:77:GLU:H	2.11	0.57
22:BA:854:C:O2'	22:BA:855:G:H5'	2.05	0.57
22:BA:923:G:C4'	44:BW:25:PHE:CZ	2.88	0.57
22:BA:1252:G:C2	38:BQ:32:ARG:HG2	2.40	0.57
22:BA:1746:A:C2	22:BA:1747:U:C2	2.93	0.57
22:BA:2828:G:C2'	22:BA:2829:A:H5'	2.34	0.57
24:BC:265:PHE:N	24:BC:265:PHE:CD1	2.73	0.57
28:BG:126:THR:CG2	28:BG:127:GLN:H	2.15	0.57
32:BK:7:MET:C	32:BK:8:LEU:CD2	2.77	0.57
33:BL:120:VAL:CG1	33:BL:121:THR:N	2.66	0.57
38:BQ:48:ASP:HA	38:BQ:51:GLN:HB2	1.86	0.57
38:BQ:63:ARG:CZ	38:BQ:96:ASP:CA	2.80	0.57
38:BQ:63:ARG:HH22	38:BQ:96:ASP:CB	2.17	0.57
39:BR:47:VAL:HG12	39:BR:47:VAL:O	2.03	0.57
39:BR:49:ILE:CG1	39:BR:51:VAL:O	2.52	0.57
40:BS:24:ILE:HD12	40:BS:32:ALA:CA	2.34	0.57
53:CA:71:A:C2	53:CA:72:A:C5	2.93	0.57
53:CA:82:G:C6	53:CA:89:U:C5	2.92	0.57
53:CA:122:G:O2'	53:CA:123:U:H5'	2.04	0.57
53:CA:192:A:H8	53:CA:192:A:O5'	1.87	0.57
53:CA:254:G:C2'	53:CA:255:G:H5'	2.34	0.57
53:CA:596:A:C2	53:CA:597:G:C5	2.93	0.57
53:CA:764:C:H3'	53:CA:765:G:H21	1.70	0.57
53:CA:931:C:H2'	53:CA:932:C:H6	1.70	0.57
53:CA:979:C:C5	53:CA:1318:A:N1	2.73	0.57
9:CI:115:VAL:HG21	10:CJ:61:ALA:O	2.05	0.57
12:CL:78:VAL:HG23	12:CL:101:LEU:HD12	1.87	0.57
55:CM:68:LEU:O	55:CM:72:ILE:HG22	2.04	0.57
56:CP:46:LYS:HE2	56:CP:47:GLU:N	2.19	0.57
17:CQ:68:LYS:HG2	17:CQ:69:THR:HG23	1.87	0.57
22:DA:192:C:H5'	22:DA:678:C:H1'	1.86	0.57
22:DA:740:C:O2'	22:DA:741:U:C5'	2.52	0.57
22:DA:1239:G:H5''	62:DA:3691:HOH:O	2.05	0.57
22:DA:1511:G:O2'	22:DA:1512:C:C6	2.47	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2619:C:H5'	25:DD:157:LYS:HG2	1.87	0.57
57:DB:109:A:C6	57:DB:110:C:N4	2.73	0.57
24:DC:30:ALA:N	24:DC:31:PRO:CD	2.68	0.57
25:DD:114:LYS:HD2	25:DD:116:LYS:HZ1	1.65	0.57
28:DG:122:ALA:HB1	28:DG:131:VAL:O	2.04	0.57
30:DI:28:GLY:O	30:DI:29:GLN:C	2.47	0.57
32:DK:113:MET:SD	32:DK:116:ILE:HD11	2.45	0.57
34:DM:71:LYS:HD3	34:DM:95:LEU:CD1	2.33	0.57
35:DN:1:MET:O	35:DN:2:ARG:CB	2.52	0.57
38:DQ:27:ARG:CA	38:DQ:33:VAL:CG1	2.66	0.57
40:DS:25:ARG:HH11	40:DS:25:ARG:HB3	1.70	0.57
46:DY:57:LEU:CD1	46:DY:60:LYS:HE3	2.32	0.57
49:D1:34:GLU:C	49:D1:35:LEU:HD23	2.29	0.57
51:D3:22:LYS:HG2	51:D3:46:LYS:HE2	1.86	0.57
1:AA:209:U:C5'	1:AA:210:C:OP2	2.52	0.57
1:AA:545:C:H2'	1:AA:545:C:O2	2.03	0.57
1:AA:764:C:O2'	1:AA:765:G:H5'	2.04	0.57
1:AA:914:A:O2'	1:AA:915:A:O4'	2.23	0.57
2:AB:9:LEU:HB2	2:AB:42:LEU:CD1	2.35	0.57
6:AF:90:MET:HB3	18:AR:60:ARG:HH21	1.70	0.57
9:AI:21:LYS:C	9:AI:21:LYS:HD2	2.30	0.57
10:AJ:33:GLY:CA	10:AJ:83:THR:HB	2.34	0.57
15:AO:69:LEU:HD21	15:AO:76:ARG:HB2	1.87	0.57
22:BA:811:U:H1'	22:BA:1251:C:C6	2.39	0.57
22:BA:899:A:O2'	22:BA:900:A:H8	1.86	0.57
22:BA:994:C:O2	39:BR:10:LYS:NZ	2.37	0.57
22:BA:1340:U:H3'	41:BT:61:LEU:HD22	1.86	0.57
22:BA:1450:G:N2	22:BA:1452:G:O6	2.37	0.57
22:BA:1778:U:O4	22:BA:1784:A:H1'	2.05	0.57
22:BA:2715:C:H6	22:BA:2715:C:O5'	1.88	0.57
24:BC:230:PRO:HD2	24:BC:246:PRO:HA	1.85	0.57
26:BE:146:VAL:HA	26:BE:185:LYS:O	2.04	0.57
28:BG:54:ARG:HD3	28:BG:54:ARG:C	2.30	0.57
33:BL:101:ILE:CG2	33:BL:102:GLY:H	2.18	0.57
33:BL:121:THR:O	33:BL:121:THR:HG23	2.05	0.57
40:BS:63:GLY:O	40:BS:64:ALA:CB	2.53	0.57
41:BT:38:ALA:HB1	41:BT:43:ILE:HG22	1.85	0.57
42:BU:35:VAL:HG12	42:BU:38:ILE:HG12	1.86	0.57
44:BW:23:LYS:NZ	44:BW:24:ARG:CG	2.67	0.57
44:BW:49:ASN:HA	44:BW:61:LYS:HB2	1.86	0.57
49:B1:22:THR:OG1	49:B1:23:THR:N	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:252:U:H2'	53:CA:253:A:H8	1.70	0.57
53:CA:390:U:O2'	53:CA:391:G:H5'	2.05	0.57
53:CA:747:A:H2'	53:CA:748:G:O4'	2.05	0.57
2:CB:73:ARG:HG3	2:CB:74:ALA:N	2.19	0.57
2:CB:75:ALA:O	2:CB:79:VAL:HB	2.04	0.57
2:CB:103:TRP:CD1	2:CB:107:ARG:HB3	2.40	0.57
14:CN:20:PHE:CE1	14:CN:54:SER:HB2	2.37	0.57
22:DA:125:A:H5''	50:D2:19:ARG:HD3	1.87	0.57
22:DA:250:G:O6	22:DA:386:G:N2	2.35	0.57
22:DA:293:U:H5''	22:DA:294:A:OP2	2.04	0.57
22:DA:475:C:H4'	22:DA:509:C:O2'	2.05	0.57
22:DA:808:G:O2'	22:DA:1254:A:H4'	2.04	0.57
22:DA:857:G:H1'	44:DW:19:ARG:HE	1.67	0.57
22:DA:921:C:O2'	22:DA:922:C:H5''	2.05	0.57
22:DA:962:G:O2'	22:DA:963:U:C5'	2.52	0.57
22:DA:1204:A:O4'	22:DA:1206:G:N7	2.38	0.57
22:DA:1328:A:H2'	22:DA:1330:C:C5	2.39	0.57
22:DA:1567:G:H5''	24:DC:84:PRO:HG3	1.86	0.57
22:DA:1765:U:C2'	22:DA:1766:G:H5'	2.35	0.57
22:DA:1813:G:N3	24:DC:49:THR:HB	2.20	0.57
22:DA:2033:A:H2'	22:DA:2033:A:OP1	2.04	0.57
22:DA:2591:C:P	24:DC:237:ARG:HD2	2.45	0.57
22:DA:2612:C:O2	48:D0:1:ALA:HB2	2.04	0.57
22:DA:2800:A:H2'	22:DA:2801:G:O4'	2.05	0.57
22:DA:2813:A:H2'	22:DA:2814:A:C8	2.40	0.57
22:DA:2882:A:H4'	35:DN:97:ILE:HG12	1.87	0.57
28:DG:93:TYR:CD2	28:DG:93:TYR:N	2.65	0.57
33:DL:77:ILE:HG12	33:DL:101:ILE:HD11	1.86	0.57
34:DM:73:ILE:HG12	34:DM:93:VAL:HG12	1.87	0.57
46:DY:1:MET:HG2	46:DY:4:LYS:HZ1	1.68	0.57
52:D4:22:VAL:O	52:D4:24:ARG:HG3	2.05	0.57
1:AA:52:C:H2'	1:AA:53:A:C8	2.40	0.57
1:AA:236:A:O2'	1:AA:237:G:H5'	2.05	0.57
4:AD:164:ARG:HG2	4:AD:165:GLU:H	1.70	0.57
9:AI:42:THR:O	9:AI:43:ALA:HB2	2.04	0.57
10:AJ:52:LEU:HD22	10:AJ:59:LYS:HA	1.86	0.57
11:AK:95:THR:O	11:AK:99:LEU:HB2	2.05	0.57
14:AN:60:ARG:O	14:AN:61:ASN:CB	2.44	0.57
21:AU:36:PHE:HD1	21:AU:39:LYS:HB3	1.70	0.57
22:BA:14:A:H5''	22:BA:15:G:OP2	2.05	0.57
22:BA:1055:G:H3'	22:BA:1056:G:H8	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1695:G:H2'	22:BA:1696:G:O4'	2.05	0.57
22:BA:2383:G:O2'	22:BA:2384:U:H5'	2.05	0.57
22:BA:2879:A:H4'	22:BA:2880:C:OP1	2.05	0.57
25:BD:111:GLY:O	25:BD:169:ARG:O	2.22	0.57
29:BH:94:ILE:HG23	29:BH:98:ASP:HB3	1.87	0.57
31:BJ:88:THR:CG2	31:BJ:91:GLU:H	2.16	0.57
32:BK:63:VAL:CG2	32:BK:85:VAL:HG23	2.33	0.57
33:BL:68:SER:HB3	33:BL:71:ALA:HB2	1.87	0.57
36:BO:54:VAL:HG22	36:BO:54:VAL:O	2.03	0.57
37:BP:1:SER:N	37:BP:4:ILE:HG13	2.20	0.57
39:BR:15:SER:H	39:BR:18:GLN:NE2	2.03	0.57
44:BW:19:ARG:NH1	44:BW:22:VAL:CG1	2.67	0.57
53:CA:112:G:C2'	53:CA:113:G:H5'	2.34	0.57
53:CA:374:A:OP1	53:CA:452:A:N1	2.36	0.57
53:CA:439:U:H4'	4:CD:120:LYS:HD2	1.87	0.57
53:CA:614:C:N3	53:CA:615:G:C8	2.72	0.57
53:CA:728:A:H2'	53:CA:729:A:C8	2.40	0.57
53:CA:1042:A:H2'	53:CA:1043:G:O4'	2.05	0.57
53:CA:1092:A:H62	53:CA:1093:A:N6	2.02	0.57
5:CE:79:THR:HA	5:CE:121:ASN:ND2	2.19	0.57
54:CG:75:LYS:HB3	54:CG:86:VAL:O	2.04	0.57
10:CJ:45:ARG:O	10:CJ:46:LYS:C	2.46	0.57
14:CN:80:ARG:HG2	14:CN:80:ARG:NH1	2.18	0.57
22:DA:104:A:H2'	22:DA:105:C:H6	1.68	0.57
22:DA:200:U:C5	22:DA:201:C:C4	2.92	0.57
22:DA:223:A:H2	22:DA:407:G:N3	2.03	0.57
22:DA:445:C:C2'	22:DA:446:G:C8	2.88	0.57
22:DA:655:A:H4'	22:DA:656:G:O5'	2.04	0.57
22:DA:784:G:C6	24:DC:227:VAL:HG11	2.40	0.57
22:DA:1062:G:C8	22:DA:1088:A:H8	2.22	0.57
22:DA:1085:A:H2'	22:DA:1086:A:N3	2.20	0.57
22:DA:1281:G:C5	22:DA:1282:U:C5	2.92	0.57
22:DA:1329:U:O2'	22:DA:1330:C:OP1	2.22	0.57
22:DA:1359:A:C2	22:DA:1360:G:C1'	2.87	0.57
22:DA:1516:G:O2'	22:DA:1517:G:H5'	2.05	0.57
22:DA:1684:G:C2	22:DA:1705:A:C2	2.92	0.57
22:DA:1867:G:O2'	22:DA:1868:C:H5'	2.05	0.57
22:DA:2182:U:H2'	22:DA:2183:A:C8	2.40	0.57
22:DA:2199:A:N6	22:DA:2225:A:N9	2.53	0.57
22:DA:2816:G:O3'	35:DN:99:LYS:HE3	2.04	0.57
57:DB:62:C:H2'	57:DB:63:C:O4'	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:53:PRO:HB3	28:DG:61:TRP:H	1.69	0.57
28:DG:91:VAL:HG23	28:DG:92:GLY:H	1.69	0.57
35:DN:16:HIS:O	35:DN:20:MET:CB	2.53	0.57
39:DR:87:GLN:HG2	39:DR:88:GLY:N	2.20	0.57
1:AA:32:A:H2'	1:AA:33:A:H8	1.61	0.56
1:AA:129:A:O2'	1:AA:130:A:C5'	2.49	0.56
1:AA:174:A:HO2'	1:AA:175:C:H5'	1.65	0.56
2:AB:15:PHE:HD1	2:AB:16:GLY:N	2.02	0.56
3:AC:76:ILE:HG12	3:AC:83:VAL:HG21	1.85	0.56
11:AK:109:ILE:O	11:AK:110:THR:CG2	2.53	0.56
14:AN:27:LYS:O	14:AN:31:SER:HB2	2.05	0.56
20:AT:27:MET:HE2	20:AT:31:ILE:HD11	1.88	0.56
22:BA:153:U:C2'	22:BA:154:U:H5'	2.35	0.56
22:BA:1107:G:H2'	22:BA:1108:U:H6	1.69	0.56
22:BA:1444:G:H2'	22:BA:1445:G:C8	2.40	0.56
22:BA:2331:G:O2'	44:BW:39:GLN:O	2.22	0.56
22:BA:2821:A:H4'	25:BD:167:ASN:ND2	2.20	0.56
24:BC:106:PRO:CB	24:BC:141:HIS:CE1	2.87	0.56
25:BD:172:VAL:O	25:BD:173:GLN:CB	2.37	0.56
29:BH:80:ILE:HG23	29:BH:147:VAL:HG21	1.87	0.56
31:BJ:18:VAL:HG22	31:BJ:140:LEU:HD12	1.85	0.56
31:BJ:54:ILE:O	31:BJ:54:ILE:HG13	2.04	0.56
33:BL:82:LEU:HD23	33:BL:83:ALA:N	2.20	0.56
38:BQ:91:ARG:NH2	38:BQ:93:ILE:HG21	2.20	0.56
39:BR:21:ARG:NH2	39:BR:93:PHE:CZ	2.73	0.56
44:BW:71:LYS:N	44:BW:71:LYS:HD2	2.18	0.56
46:BY:7:ARG:N	46:BY:60:LYS:NZ	2.44	0.56
47:BZ:7:THR:HG23	47:BZ:34:THR:OG1	2.05	0.56
51:B3:14:LYS:O	51:B3:21:PHE:O	2.23	0.56
53:CA:122:G:H2'	53:CA:123:U:C6	2.40	0.56
53:CA:429:U:C1'	53:CA:430:A:H5''	2.34	0.56
53:CA:989:U:C4	53:CA:990:C:N4	2.73	0.56
53:CA:1276:G:O2'	53:CA:1277:C:H5'	2.05	0.56
2:CB:84:LEU:O	2:CB:84:LEU:CG	2.53	0.56
4:CD:39:GLN:C	4:CD:41:GLY:N	2.61	0.56
5:CE:14:LEU:HD22	5:CE:59:ILE:HD13	1.85	0.56
5:CE:65:LYS:HZ2	5:CE:68:ARG:HD3	1.70	0.56
8:CH:57:GLU:HG3	8:CH:58:LEU:H	1.70	0.56
9:CI:58:GLU:HG3	9:CI:59:LYS:N	2.20	0.56
12:CL:14:LYS:HG3	12:CL:14:LYS:O	2.05	0.56
14:CN:64:ARG:HD3	14:CN:77:GLY:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CO:16:ARG:HB2	15:CO:23:SER:HB2	1.87	0.56
19:CS:14:LEU:C	19:CS:14:LEU:HD12	2.29	0.56
22:DA:191:A:H2'	22:DA:192:C:H6	1.67	0.56
22:DA:300:A:H2'	22:DA:301:G:H5'	1.86	0.56
22:DA:487:C:H2'	22:DA:488:G:H5'	1.87	0.56
22:DA:740:C:H5'	22:DA:1784:A:H3'	1.87	0.56
22:DA:2346:A:C3'	22:DA:2347:C:H5''	2.29	0.56
22:DA:2438:U:O2'	22:DA:2439:A:H5''	2.04	0.56
22:DA:2756:U:HO2'	22:DA:2757:A:H5'	1.69	0.56
24:DC:91:ALA:HB3	24:DC:103:ILE:HG23	1.87	0.56
28:DG:112:VAL:HG12	28:DG:114:HIS:N	2.19	0.56
29:DH:45:GLU:C	29:DH:47:PHE:H	2.12	0.56
35:DN:42:LYS:HA	35:DN:45:ARG:HD3	1.86	0.56
38:DQ:48:ASP:HA	38:DQ:51:GLN:HB2	1.86	0.56
40:DS:84:ARG:HB3	40:DS:96:ILE:CG2	2.35	0.56
42:DU:14:THR:HG23	42:DU:15:GLY:N	2.16	0.56
42:DU:96:LYS:O	42:DU:97:SER:HB3	2.05	0.56
1:AA:139:A:O2'	1:AA:140:U:H5'	2.04	0.56
1:AA:345:C:H4'	37:BP:33:GLU:CD	2.30	0.56
1:AA:512:U:O2'	1:AA:513:C:C6	2.57	0.56
1:AA:1322:C:O2'	1:AA:1323:G:O5'	2.23	0.56
1:AA:1323:G:H2'	1:AA:1324:A:C8	2.39	0.56
2:AB:67:LEU:HD21	2:AB:91:VAL:CG2	2.32	0.56
2:AB:143:LEU:HD23	2:AB:143:LEU:H	1.69	0.56
6:AF:81:ASN:HB3	6:AF:84:VAL:HG12	1.86	0.56
6:AF:85:ILE:O	6:AF:86:ARG:C	2.49	0.56
15:AO:9:LYS:HB3	15:AO:9:LYS:NZ	2.21	0.56
22:BA:758:C:O2	22:BA:1981:A:H2	1.88	0.56
22:BA:1003:G:O2'	22:BA:1004:U:H5'	2.05	0.56
22:BA:1081:U:H2'	22:BA:1081:U:O2	2.03	0.56
22:BA:2320:U:H4'	22:BA:2321:U:H5''	1.87	0.56
22:BA:2788:C:O2'	22:BA:2789:C:H5'	2.05	0.56
25:BD:99:GLU:O	25:BD:101:PHE:N	2.38	0.56
27:BF:3:LEU:HD12	27:BF:172:PHE:CE2	2.41	0.56
31:BJ:13:ARG:O	31:BJ:14:ASP:CB	2.49	0.56
31:BJ:25:LEU:C	31:BJ:25:LEU:CD2	2.75	0.56
32:BK:19:VAL:HG23	32:BK:43:ILE:HA	1.87	0.56
34:BM:76:LYS:O	34:BM:77:PRO:O	2.23	0.56
36:BO:75:GLY:HA2	36:BO:106:LEU:HD13	1.86	0.56
41:BT:87:LEU:CB	41:BT:91:GLN:HG2	2.31	0.56
53:CA:154:U:C2'	53:CA:155:A:H5'	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:374:A:H5''	53:CA:452:A:C6	2.39	0.56
53:CA:513:C:O2'	53:CA:514:C:O4'	2.22	0.56
53:CA:644:U:H2'	53:CA:645:G:H8	1.70	0.56
2:CB:95:TRP:CH2	2:CB:171:ALA:HA	2.39	0.56
2:CB:160:LEU:HD22	2:CB:175:ALA:HB2	1.87	0.56
3:CC:150:VAL:HG12	3:CC:199:VAL:HG12	1.86	0.56
3:CC:161:ILE:HD13	3:CC:161:ILE:H	1.71	0.56
4:CD:28:ASP:O	4:CD:29:THR:O	2.23	0.56
14:CN:27:LYS:HB2	14:CN:45:LEU:CD2	2.35	0.56
56:CP:44:SER:HB2	56:CP:46:LYS:HG3	1.87	0.56
22:DA:118:A:P	22:DA:119:A:H5''	2.45	0.56
22:DA:308:G:N1	22:DA:309:A:C2	2.73	0.56
22:DA:352:A:H3'	22:DA:353:C:H5''	1.87	0.56
22:DA:528:A:N1	22:DA:2042:A:H2'	2.20	0.56
22:DA:615:U:O4	26:DE:39:ALA:HB2	2.06	0.56
22:DA:636:G:H3'	33:DL:128:THR:HG21	1.86	0.56
22:DA:674:G:N2	22:DA:2445:G:OP1	2.38	0.56
22:DA:755:U:O2'	22:DA:756:A:H5'	2.05	0.56
22:DA:1055:G:H3'	22:DA:1056:G:H5'	1.86	0.56
22:DA:1078:U:H5''	22:DA:1079:C:OP1	2.06	0.56
22:DA:1131:G:C5	22:DA:2025:C:H4'	2.40	0.56
22:DA:2305:U:O2'	58:DF:132:ARG:HA	2.05	0.56
22:DA:2313:C:O2'	22:DA:2314:A:H8	1.87	0.56
22:DA:2513:A:H2	25:DD:148:GLN:HE21	1.53	0.56
22:DA:2730:C:H2'	22:DA:2731:G:O4'	2.05	0.56
57:DB:78:A:C2	57:DB:99:A:C4	2.92	0.56
24:DC:106:PRO:CB	24:DC:141:HIS:HE1	2.18	0.56
25:DD:150:GLN:HG3	25:DD:151:THR:N	2.20	0.56
29:DH:4:ILE:HG23	29:DH:17:ASP:O	2.05	0.56
30:DI:112:LYS:HZ3	30:DI:128:ILE:HD12	1.70	0.56
32:DK:87:LEU:HB2	32:DK:92:GLU:O	2.04	0.56
38:DQ:4:LYS:HD3	38:DQ:7:VAL:HG22	1.87	0.56
39:DR:39:LEU:HD22	39:DR:53:PHE:CE1	2.40	0.56
41:DT:29:THR:HB	41:DT:86:THR:N	2.20	0.56
42:DU:94:PHE:O	42:DU:95:PHE:C	2.48	0.56
45:DX:39:VAL:O	45:DX:40:GLU:HB2	2.05	0.56
1:AA:3:A:N1	1:AA:628:G:O2'	2.31	0.56
1:AA:280:C:H4'	1:AA:281:G:OP2	2.04	0.56
1:AA:473:U:H2'	1:AA:474:G:C8	2.33	0.56
1:AA:488:C:C2'	1:AA:489:C:H5'	2.34	0.56
1:AA:536:C:H2'	1:AA:537:G:C8	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:672:U:H2'	1:AA:673:A:C8	2.39	0.56
1:AA:878:A:C5'	8:AH:80:PRO:HG2	2.35	0.56
1:AA:1016:A:C8	1:AA:1017:U:H1'	2.40	0.56
1:AA:1052:U:H5''	1:AA:1053:G:OP2	2.05	0.56
1:AA:1072:G:H2'	1:AA:1073:U:C6	2.41	0.56
1:AA:1380:U:C5	7:AG:2:ARG:HA	2.40	0.56
2:AB:49:PHE:O	2:AB:52:ALA:HB3	2.06	0.56
2:AB:101:THR:HG22	2:AB:174:GLU:CD	2.29	0.56
3:AC:129:PHE:O	3:AC:133:MET:HG3	2.04	0.56
4:AD:60:VAL:CA	4:AD:63:ILE:HG22	2.30	0.56
4:AD:191:SER:OG	4:AD:192:ALA:N	2.37	0.56
9:AI:89:TYR:O	9:AI:90:ASP:HB3	2.05	0.56
10:AJ:49:PHE:CD1	14:AN:76:PHE:HZ	2.23	0.56
11:AK:76:TYR:CD1	11:AK:76:TYR:N	2.73	0.56
11:AK:97:ARG:C	11:AK:99:LEU:H	2.13	0.56
11:AK:109:ILE:HG21	21:AU:16:ARG:HE	1.70	0.56
13:AM:45:SER:O	13:AM:46:GLU:CB	2.53	0.56
16:AP:48:GLU:CG	16:AP:49:GLY:N	2.66	0.56
17:AQ:12:VAL:HB	17:AQ:21:VAL:HG22	1.86	0.56
17:AQ:58:VAL:CG2	17:AQ:59:GLU:N	2.68	0.56
19:AS:62:THR:HB	19:AS:65:MET:HG3	1.87	0.56
20:AT:50:PHE:HA	20:AT:53:MET:HG2	1.87	0.56
22:BA:37:C:O2'	26:BE:45:ALA:CB	2.53	0.56
22:BA:163:C:HO2'	22:BA:164:C:C5'	2.17	0.56
22:BA:273:G:O2'	22:BA:274:C:O5'	2.23	0.56
22:BA:621:A:H2'	22:BA:622:G:O4'	2.05	0.56
22:BA:983:A:C6	22:BA:984:A:C2	2.94	0.56
22:BA:1799:G:N2	24:BC:153:LEU:HD23	2.21	0.56
22:BA:1878:G:O2'	22:BA:1879:C:H5'	2.05	0.56
22:BA:2230:G:O3'	45:BX:29:LEU:HD23	2.04	0.56
22:BA:2499:C:H3'	22:BA:2500:U:H5''	1.88	0.56
22:BA:2698:U:H2'	22:BA:2699:C:C6	2.40	0.56
22:BA:2711:A:OP2	62:BA:3540:HOH:O	2.18	0.56
23:BB:109:A:O2'	23:BB:110:C:H5'	2.05	0.56
24:BC:70:LYS:NZ	24:BC:97:ASP:OD2	2.38	0.56
24:BC:156:SER:O	24:BC:157:ALA:C	2.48	0.56
25:BD:8:LYS:HB2	25:BD:201:LEU:HD22	1.88	0.56
25:BD:159:LYS:NZ	25:BD:160:LYS:N	2.49	0.56
26:BE:7:ASP:O	26:BE:9:GLN:N	2.38	0.56
26:BE:115:GLN:O	26:BE:116:ASP:C	2.49	0.56
26:BE:196:VAL:O	26:BE:200:LEU:HD23	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:1:ALA:O	27:BF:2:LYS:HB3	2.05	0.56
27:BF:45:ASP:CB	27:BF:48:LEU:HB2	2.34	0.56
27:BF:116:LEU:O	27:BF:176:PHE:HA	2.05	0.56
28:BG:164:ALA:C	28:BG:166:GLU:H	2.12	0.56
29:BH:78:VAL:CG2	29:BH:145:ASN:HD22	2.18	0.56
30:BI:3:LYS:CD	30:BI:4:VAL:HG23	2.35	0.56
32:BK:5:GLN:O	32:BK:6:THR:HB	2.05	0.56
37:BP:24:THR:HG22	37:BP:87:ARG:H	1.70	0.56
37:BP:33:GLU:CG	37:BP:34:GLY:N	2.62	0.56
37:BP:52:ARG:HG2	37:BP:52:ARG:HH11	1.70	0.56
38:BQ:68:ALA:HB1	38:BQ:73:ILE:HG23	1.88	0.56
39:BR:59:ILE:HG12	39:BR:101:ILE:HD13	1.87	0.56
42:BU:5:ARG:HG2	42:BU:5:ARG:HH21	1.69	0.56
43:BV:25:LYS:HD3	43:BV:43:ASP:HA	1.87	0.56
44:BW:18:LYS:N	44:BW:36:ILE:CG1	2.67	0.56
44:BW:18:LYS:H	44:BW:36:ILE:N	2.03	0.56
44:BW:41:GLY:HA2	44:BW:44:PHE:CE2	2.40	0.56
44:BW:49:ASN:C	44:BW:49:ASN:ND2	2.62	0.56
46:BY:14:LEU:HD22	46:BY:57:LEU:HD21	1.87	0.56
49:B1:9:LYS:O	49:B1:50:GLU:HG3	2.04	0.56
49:B1:24:LYS:HE2	49:B1:52:LYS:CB	2.32	0.56
53:CA:461:A:P	53:CA:462:G:OP2	2.64	0.56
53:CA:969:A:O2'	53:CA:970:C:C5'	2.54	0.56
53:CA:1068:G:C2	53:CA:1069:C:C6	2.93	0.56
53:CA:1124:G:O2'	53:CA:1125:U:C6	2.58	0.56
53:CA:1452:C:C4'	53:CA:1453:G:O5'	2.46	0.56
53:CA:1494:G:H5'	22:DA:1913:A:C6	2.40	0.56
2:CB:99:MET:O	2:CB:103:TRP:HB3	2.03	0.56
5:CE:86:GLY:O	5:CE:87:VAL:HG13	2.06	0.56
54:CG:70:PRO:HB3	54:CG:98:LEU:HD12	1.86	0.56
8:CH:82:LEU:HD12	12:CL:3:VAL:HG11	1.86	0.56
12:CL:5:GLN:HG3	12:CL:9:LYS:HZ3	1.69	0.56
55:CM:47:LEU:HD23	55:CM:47:LEU:C	2.29	0.56
14:CN:52:ARG:HA	14:CN:52:ARG:CZ	2.35	0.56
14:CN:72:PHE:HB2	14:CN:78:LEU:O	2.05	0.56
18:CR:31:TYR:CG	18:CR:54:LEU:HD21	2.40	0.56
21:CU:36:PHE:HB3	21:CU:40:PRO:HD3	1.87	0.56
22:DA:30:G:H2'	22:DA:31:C:C6	2.40	0.56
22:DA:36:G:N1	22:DA:445:C:C4	2.73	0.56
22:DA:260:G:C6	22:DA:261:G:C5	2.93	0.56
22:DA:380:G:O3'	45:DX:15:ASN:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:382:A:C2	22:DA:393:C:C2	2.93	0.56
22:DA:460:A:C2'	22:DA:461:C:O4'	2.54	0.56
22:DA:607:U:H5	22:DA:619:G:C5	2.24	0.56
22:DA:730:A:H2'	22:DA:731:C:H6	1.70	0.56
22:DA:781:A:H2'	22:DA:1777:U:H1'	1.86	0.56
22:DA:782:A:OP1	22:DA:782:A:H8	1.88	0.56
22:DA:836:G:C5	22:DA:837:C:C4	2.94	0.56
22:DA:972:A:N1	22:DA:973:A:N6	2.54	0.56
22:DA:1161:C:H4'	39:DR:8:GLY:O	2.05	0.56
22:DA:1171:G:C2	22:DA:1179:G:N3	2.73	0.56
22:DA:1248:G:OP1	38:DQ:1:ALA:HB3	2.05	0.56
22:DA:1262:A:C6	22:DA:1263:U:C2	2.92	0.56
22:DA:1476:U:H1'	22:DA:1732:C:C2	2.41	0.56
22:DA:1494:A:O2'	22:DA:1495:A:H5'	2.05	0.56
22:DA:1603:A:O2'	22:DA:1604:C:H5'	2.05	0.56
22:DA:1649:G:N1	22:DA:2009:A:C6	2.74	0.56
22:DA:1655:A:H4'	25:DD:118:PHE:CD1	2.40	0.56
22:DA:1924:C:O2'	22:DA:1925:C:H5'	2.05	0.56
22:DA:2315:G:OP1	58:DF:156:THR:HG21	2.04	0.56
22:DA:2414:G:H2'	22:DA:2415:G:H5'	1.87	0.56
22:DA:2727:A:O2'	22:DA:2728:U:C6	2.58	0.56
22:DA:2756:U:H1'	22:DA:2757:A:C5'	2.34	0.56
22:DA:2879:A:O2'	22:DA:2880:C:P	2.64	0.56
24:DC:15:VAL:HG22	24:DC:204:LEU:O	2.05	0.56
24:DC:71:ASP:O	24:DC:73:ILE:HG12	2.05	0.56
25:DD:56:LYS:NZ	25:DD:56:LYS:HB3	2.21	0.56
25:DD:61:THR:CB	25:DD:63:PRO:HD2	2.35	0.56
28:DG:84:LYS:HD3	28:DG:84:LYS:N	2.20	0.56
29:DH:62:LEU:C	29:DH:64:ALA:H	2.12	0.56
29:DH:84:ALA:HA	29:DH:89:LYS:O	2.04	0.56
31:DJ:16:TYR:HB2	31:DJ:54:ILE:HD13	1.86	0.56
33:DL:120:VAL:HG12	33:DL:121:THR:H	1.69	0.56
35:DN:33:ILE:HG23	35:DN:114:GLU:HB2	1.88	0.56
35:DN:73:ASN:C	35:DN:76:VAL:HG22	2.29	0.56
38:DQ:46:TYR:CD1	39:DR:74:ILE:CG2	2.87	0.56
40:DS:20:VAL:HG11	40:DS:43:ALA:HB1	1.88	0.56
41:DT:76:ARG:HG2	41:DT:77:ARG:N	2.20	0.56
43:DV:75:GLN:HG3	43:DV:92:VAL:HG11	1.86	0.56
44:DW:9:THR:HG23	44:DW:10:ARG:N	2.19	0.56
45:DX:77:TYR:CD1	45:DX:77:TYR:C	2.83	0.56
46:DY:39:GLN:O	46:DY:42:LEU:HB2	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D4:36:ARG:HG2	52:D4:37:GLN:H	1.71	0.56
1:AA:181:A:N6	1:AA:195:A:OP2	2.39	0.56
1:AA:210:C:H4'	1:AA:211:G:C2	2.39	0.56
1:AA:995:C:H4'	14:AN:7:ALA:HB2	1.88	0.56
4:AD:29:THR:HG22	4:AD:30:LYS:N	2.21	0.56
5:AE:100:GLU:HB2	5:AE:103:GLY:HA2	1.86	0.56
13:AM:28:ARG:O	13:AM:32:ILE:HG12	2.06	0.56
14:AN:47:LEU:O	14:AN:47:LEU:HD23	2.05	0.56
15:AO:23:SER:O	15:AO:24:THR:C	2.48	0.56
22:BA:634:C:H2'	22:BA:635:C:C6	2.41	0.56
22:BA:854:C:C2'	22:BA:855:G:H5'	2.36	0.56
22:BA:947:A:O2'	22:BA:984:A:C2	2.53	0.56
22:BA:1654:A:C4'	25:BD:118:PHE:CZ	2.89	0.56
22:BA:1866:A:C6	22:BA:1876:A:C8	2.94	0.56
24:BC:123:ILE:HD12	24:BC:135:PRO:HG2	1.87	0.56
24:BC:159:THR:O	24:BC:194:VAL:HG12	2.05	0.56
25:BD:101:PHE:HE2	25:BD:203:VAL:CG2	2.17	0.56
30:BI:15:GLY:CA	30:BI:50:LYS:HB3	2.28	0.56
31:BJ:110:PRO:HB2	31:BJ:111:LYS:HG3	1.86	0.56
33:BL:116:VAL:O	33:BL:116:VAL:HG13	2.04	0.56
36:BO:2:ASP:HB3	36:BO:5:SER:HB2	1.87	0.56
46:BY:18:LEU:HD11	46:BY:22:LEU:HD22	1.87	0.56
53:CA:80:A:C6	53:CA:81:A:O2'	2.58	0.56
53:CA:247:G:C6	53:CA:278:G:N1	2.73	0.56
53:CA:389:A:H2'	53:CA:390:U:O4'	2.06	0.56
53:CA:413:G:N2	53:CA:428:G:O2'	2.39	0.56
53:CA:1092:A:C2	53:CA:1183:U:N3	2.70	0.56
53:CA:1117:A:C6	53:CA:1184:G:O6	2.58	0.56
14:CN:79:SER:HB2	14:CN:81:ILE:CD1	2.35	0.56
17:CQ:61:ARG:CG	17:CQ:75:VAL:HG11	2.33	0.56
20:CT:61:ALA:O	20:CT:67:HIS:CG	2.59	0.56
22:DA:20:C:O2'	22:DA:21:A:H5'	2.05	0.56
22:DA:77:G:N2	22:DA:110:G:H1'	2.21	0.56
22:DA:174:U:H2'	22:DA:174:U:O2	2.04	0.56
22:DA:585:G:H2'	22:DA:1254:A:H61	1.70	0.56
22:DA:589:U:H2'	22:DA:590:A:C8	2.26	0.56
22:DA:629:G:O2'	22:DA:630:G:C5'	2.52	0.56
22:DA:736:C:C4	22:DA:737:C:C5	2.94	0.56
22:DA:910:A:C2	34:DM:13:HIS:CE1	2.93	0.56
22:DA:1022:G:C6	22:DA:1140:C:C5	2.94	0.56
22:DA:1277:G:H5'	35:DN:20:MET:HE1	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1304:A:O2'	22:DA:1305:C:O5'	2.24	0.56
22:DA:1404:C:O2'	22:DA:1405:U:H5'	2.05	0.56
22:DA:1428:C:C5	22:DA:1569:A:C5'	2.88	0.56
22:DA:1935:G:H1'	22:DA:1964:G:H21	1.66	0.56
22:DA:2064:C:H2'	22:DA:2065:C:C6	2.40	0.56
22:DA:2244:U:H2'	22:DA:2245:U:O4'	2.05	0.56
22:DA:2316:G:H2'	22:DA:2317:A:H8	1.69	0.56
22:DA:2440:C:O2'	22:DA:2441:U:H4'	2.04	0.56
58:DF:118:ALA:HB2	58:DF:176:PHE:HB3	1.87	0.56
28:DG:126:THR:HG22	28:DG:127:GLN:N	2.14	0.56
29:DH:78:VAL:HG22	29:DH:100:ALA:HA	1.87	0.56
40:DS:39:THR:O	40:DS:40:ASN:CB	2.53	0.56
41:DT:69:ARG:HD2	41:DT:70:HIS:H	1.70	0.56
44:DW:37:VAL:C	44:DW:39:GLN:H	2.12	0.56
44:DW:65:LYS:N	44:DW:65:LYS:HD2	2.20	0.56
51:D3:22:LYS:N	51:D3:48:MET:HB3	2.18	0.56
52:D4:7:VAL:O	52:D4:8:LYS:HG2	2.05	0.56
1:AA:92:U:O2'	1:AA:93:U:O4'	2.23	0.56
1:AA:669:G:O2'	1:AA:670:G:H5'	2.05	0.56
1:AA:802:A:H5''	1:AA:803:G:OP2	2.05	0.56
1:AA:914:A:N3	1:AA:915:A:C8	2.74	0.56
1:AA:1491:G:H5'	1:AA:1492:A:OP1	2.04	0.56
7:AG:68:VAL:HG21	7:AG:103:ILE:CG1	2.35	0.56
22:BA:27:G:O2'	22:BA:28:A:P	2.63	0.56
22:BA:866:A:N7	22:BA:914:G:C6	2.73	0.56
22:BA:1182:G:O2'	22:BA:1183:U:H5'	2.05	0.56
22:BA:2262:U:H4'	22:BA:2328:A:H2	1.71	0.56
22:BA:2472:G:H2'	22:BA:2475:C:H42	1.70	0.56
25:BD:107:VAL:N	25:BD:206:ALA:H	2.02	0.56
26:BE:32:VAL:HG23	26:BE:33:VAL:H	1.70	0.56
33:BL:80:SER:HB3	33:BL:115:GLU:CD	2.31	0.56
41:BT:1:MET:HB3	41:BT:2:ILE:HD13	1.86	0.56
41:BT:38:ALA:HB1	41:BT:43:ILE:CG2	2.36	0.56
42:BU:5:ARG:HG2	42:BU:5:ARG:NH2	2.20	0.56
44:BW:19:ARG:CZ	44:BW:22:VAL:HB	2.35	0.56
45:BX:30:PRO:HB2	45:BX:32:LEU:HD11	1.84	0.56
51:B3:56:LEU:N	51:B3:56:LEU:HD22	2.20	0.56
53:CA:94:G:O2'	53:CA:95:C:C5'	2.54	0.56
53:CA:204:G:H2'	53:CA:205:A:C8	2.41	0.56
53:CA:796:C:O3'	11:CK:126:ARG:NH2	2.39	0.56
53:CA:982:U:C1'	53:CA:983:A:N7	2.61	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1009:U:H2'	53:CA:1010:U:C6	2.40	0.56
53:CA:1057:G:H4'	3:CC:196:GLY:H	1.71	0.56
3:CC:149:LYS:HE3	3:CC:200:TRP:CE3	2.40	0.56
4:CD:81:LEU:O	4:CD:83:GLY:N	2.38	0.56
4:CD:94:GLU:HA	4:CD:99:ASN:ND2	2.21	0.56
12:CL:61:GLU:O	12:CL:61:GLU:HG3	2.05	0.56
56:CP:74:LEU:O	56:CP:78:VAL:CG2	2.52	0.56
19:CS:45:GLY:H	19:CS:61:VAL:HB	1.70	0.56
22:DA:53:A:H2	22:DA:179:C:H4'	1.70	0.56
22:DA:234:U:H5''	22:DA:234:U:H6	1.71	0.56
22:DA:457:A:N3	22:DA:459:U:O4	2.39	0.56
22:DA:669:G:C2	22:DA:801:G:C6	2.93	0.56
22:DA:1036:G:C6	22:DA:1120:G:C6	2.93	0.56
22:DA:1183:U:H2'	22:DA:1184:U:C6	2.41	0.56
22:DA:1385:A:H4'	22:DA:1386:C:OP1	2.06	0.56
22:DA:1416:G:N1	22:DA:1417:C:C4	2.73	0.56
22:DA:1954:G:O2'	22:DA:1955:U:P	2.63	0.56
22:DA:2147:A:OP1	22:DA:2147:A:C4'	2.54	0.56
22:DA:2408:U:H2'	22:DA:2409:G:C8	2.40	0.56
57:DB:81:G:C4	57:DB:82:U:C6	2.94	0.56
35:DN:24:MET:HG2	35:DN:44:LEU:CD2	2.34	0.56
43:DV:27:PRO:O	43:DV:88:HIS:HA	2.06	0.56
44:DW:70:VAL:HG22	44:DW:70:VAL:O	2.06	0.56
1:AA:265:G:H2'	1:AA:266:G:H5'	1.88	0.56
1:AA:567:G:H5'	1:AA:567:G:C8	2.34	0.56
1:AA:1138:G:O2'	1:AA:1139:G:H4'	2.05	0.56
1:AA:1533:C:H3'	1:AA:1534:A:C5'	2.34	0.56
2:AB:20:ARG:O	2:AB:22:TRP:N	2.38	0.56
9:AI:56:MET:HE2	9:AI:57:VAL:N	2.15	0.56
9:AI:129:ARG:NH1	9:AI:129:ARG:HA	2.21	0.56
10:AJ:53:ILE:HD11	14:AN:84:ARG:CZ	2.35	0.56
20:AT:80:ALA:O	20:AT:84:LYS:HB2	2.05	0.56
22:BA:191:A:H2'	22:BA:192:C:C6	2.40	0.56
22:BA:309:A:N3	22:BA:329:G:O2'	2.39	0.56
22:BA:1033:U:H4'	22:BA:1034:G:OP1	2.04	0.56
22:BA:1078:U:H5''	22:BA:1079:C:O5'	2.05	0.56
22:BA:1115:G:O2'	22:BA:1116:G:O5'	2.24	0.56
22:BA:1131:G:OP1	31:BJ:82:GLY:HA2	2.05	0.56
22:BA:1559:U:H4'	22:BA:1560:G:OP2	2.05	0.56
22:BA:2226:C:O2'	22:BA:2227:A:C5'	2.52	0.56
22:BA:2446:G:C3'	22:BA:2447:G:H5''	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:139:SER:HA	25:BD:142:VAL:CG1	2.35	0.56
31:BJ:6:ALA:HB2	31:BJ:45:THR:HG21	1.83	0.56
37:BP:85:VAL:O	37:BP:86:LYS:HB2	2.04	0.56
40:BS:18:ARG:O	40:BS:19:LEU:CB	2.53	0.56
42:BU:52:ASN:C	42:BU:54:PRO:CD	2.74	0.56
53:CA:579:A:H2'	53:CA:580:C:C6	2.40	0.56
53:CA:765:G:C5	53:CA:812:G:C6	2.93	0.56
53:CA:782:A:C2'	53:CA:783:C:H5'	2.36	0.56
53:CA:1004:A:H2'	53:CA:1005:A:O4'	2.06	0.56
53:CA:1047:G:O6	53:CA:1211:U:C2	2.59	0.56
2:CB:119:GLN:HG3	2:CB:124:THR:CG2	2.35	0.56
4:CD:72:ARG:HD2	4:CD:203:TYR:CE1	2.40	0.56
6:CF:11:HIS:CD2	6:CF:12:PRO:HD2	2.39	0.56
54:CG:42:VAL:HG12	54:CG:43:TYR:CD2	2.40	0.56
54:CG:79:VAL:O	54:CG:79:VAL:HG23	2.06	0.56
9:CI:39:GLY:O	9:CI:40:ARG:HB2	2.04	0.56
9:CI:45:MET:CE	9:CI:48:ARG:HG3	2.35	0.56
10:CJ:90:LEU:O	10:CJ:90:LEU:HD23	2.06	0.56
10:CJ:92:LEU:N	10:CJ:92:LEU:HD13	2.21	0.56
56:CP:19:VAL:HG13	56:CP:37:GLY:HA3	1.87	0.56
17:CQ:4:ILE:HG22	17:CQ:5:ARG:N	2.20	0.56
21:CU:16:ARG:HA	21:CU:16:ARG:NE	2.21	0.56
22:DA:143:C:C2'	22:DA:144:A:C8	2.88	0.56
22:DA:289:G:C2	22:DA:352:A:C2	2.94	0.56
22:DA:1439:A:N7	22:DA:1440:U:H1'	2.20	0.56
22:DA:1717:A:N6	22:DA:1744:A:C8	2.73	0.56
22:DA:1734:G:C2'	22:DA:1735:A:C8	2.84	0.56
22:DA:1765:U:O2'	22:DA:1766:G:H5'	2.05	0.56
22:DA:2259:U:C4	22:DA:2427:C:N4	2.74	0.56
22:DA:2307:G:H1'	22:DA:2308:G:C5	2.40	0.56
22:DA:2330:G:N1	22:DA:2386:A:C6	2.73	0.56
28:DG:100:ASN:O	28:DG:115:GLN:HB2	2.05	0.56
28:DG:148:ARG:HB2	28:DG:152:ARG:HH21	1.71	0.56
29:DH:8:LYS:HD2	29:DH:8:LYS:C	2.30	0.56
29:DH:49:ALA:HB3	29:DH:50:ARG:NH2	2.21	0.56
36:DO:89:ASP:O	36:DO:90:VAL:HG13	2.06	0.56
39:DR:55:ASP:CG	39:DR:56:GLY:H	2.13	0.56
41:DT:17:SER:C	41:DT:18:GLU:HG2	2.31	0.56
42:DU:85:ARG:HA	42:DU:85:ARG:NE	2.20	0.56
42:DU:95:PHE:O	42:DU:97:SER:N	2.38	0.56
46:DY:28:LEU:C	46:DY:28:LEU:HD13	2.31	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:6:G:HO2'	1:AA:7:A:H8	1.52	0.56
1:AA:1053:G:O6	1:AA:1199:U:H2'	2.06	0.56
1:AA:1129:C:H2'	1:AA:1139:G:N7	2.20	0.56
1:AA:1183:U:H3'	1:AA:1184:G:H5''	1.87	0.56
2:AB:66:ILE:HG22	2:AB:67:LEU:N	2.21	0.56
4:AD:57:LYS:CB	4:AD:199:ILE:HG13	2.36	0.56
10:AJ:14:ASP:HB2	10:AJ:17:LEU:HB3	1.85	0.56
14:AN:42:ASN:HD21	14:AN:46:LYS:HZ1	1.53	0.56
20:AT:2:ASN:O	20:AT:3:ILE:C	2.48	0.56
22:BA:311:A:C8	22:BA:332:A:C5	2.94	0.56
22:BA:936:A:C5	22:BA:937:C:C5	2.94	0.56
22:BA:1023:U:H6	22:BA:1023:U:C5'	2.14	0.56
22:BA:1107:G:H2'	22:BA:1108:U:C6	2.41	0.56
22:BA:1360:G:C6	22:BA:1372:U:C2	2.94	0.56
23:BB:56:G:H5''	23:BB:57:A:OP1	2.06	0.56
24:BC:16:VAL:N	24:BC:203:VAL:HG11	2.21	0.56
24:BC:102:TYR:O	24:BC:103:ILE:HD12	2.06	0.56
25:BD:101:PHE:N	25:BD:101:PHE:CD1	2.74	0.56
29:BH:49:ALA:O	29:BH:53:GLU:N	2.33	0.56
30:BI:23:VAL:HG23	30:BI:24:GLY:H	1.71	0.56
31:BJ:17:VAL:HG13	31:BJ:55:ILE:HG13	1.86	0.56
31:BJ:72:LYS:HB2	31:BJ:89:PHE:HB2	1.87	0.56
32:BK:92:GLU:O	32:BK:93:GLN:O	2.23	0.56
40:BS:31:GLN:O	40:BS:35:ILE:HG12	2.05	0.56
41:BT:87:LEU:O	41:BT:89:GLU:N	2.38	0.56
42:BU:3:LYS:O	42:BU:82:VAL:HG21	2.06	0.56
43:BV:80:HIS:HD2	43:BV:83:LYS:HB2	1.66	0.56
53:CA:69:G:H2'	53:CA:70:U:C6	2.41	0.56
53:CA:110:C:H2'	53:CA:111:G:C8	2.40	0.56
53:CA:984:C:O2'	53:CA:985:C:C5	2.53	0.56
53:CA:1225:A:H4'	19:CS:77:ARG:HH12	1.68	0.56
2:CB:164:ASP:CG	2:CB:203:ASP:HB2	2.31	0.56
5:CE:114:LEU:HD13	5:CE:122:VAL:HG11	1.87	0.56
10:CJ:6:ILE:HG23	10:CJ:100:ILE:CG2	2.36	0.56
22:DA:92:U:H2'	22:DA:93:G:H8	1.71	0.56
22:DA:370:G:C6	22:DA:424:G:N7	2.74	0.56
22:DA:677:A:C2	22:DA:678:C:C4	2.94	0.56
22:DA:1116:G:C2	22:DA:1117:C:C2	2.94	0.56
22:DA:1287:A:OP1	35:DN:103:ARG:HG3	2.06	0.56
22:DA:1364:G:H1'	22:DA:1368:G:N2	2.20	0.56
22:DA:1525:A:C2'	22:DA:1526:C:H5'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1536:C:H4'	22:DA:1537:G:H5'	1.87	0.56
22:DA:2060:A:H62	26:DE:69:ARG:NH1	2.03	0.56
22:DA:2766:A:H2'	22:DA:2766:A:N3	2.20	0.56
58:DF:111:ARG:HG3	58:DF:135:ILE:HG12	1.87	0.56
31:DJ:44:TYR:CD1	38:DQ:63:ARG:NH2	2.74	0.56
32:DK:77:ILE:HD11	32:DK:105:ARG:NH2	2.21	0.56
1:AA:466:A:H4'	1:AA:467:U:OP2	2.03	0.56
1:AA:738:C:O2'	1:AA:739:C:H5'	2.06	0.56
1:AA:858:G:O2'	1:AA:859:G:C5'	2.53	0.56
1:AA:1097:C:H2'	1:AA:1098:C:H6	1.71	0.56
2:AB:20:ARG:O	2:AB:22:TRP:HB3	2.06	0.56
3:AC:21:TRP:HB3	3:AC:58:ARG:H	1.71	0.56
7:AG:129:ASN:HA	7:AG:134:VAL:HG11	1.88	0.56
11:AK:124:LYS:HE3	21:AU:34:ARG:HG2	1.86	0.56
17:AQ:60:ILE:HG22	17:AQ:72:TRP:CE3	2.41	0.56
22:BA:52:A:O2'	22:BA:53:A:H5'	2.06	0.56
22:BA:923:G:H21	44:BW:23:LYS:NZ	1.92	0.56
22:BA:1071:G:C1'	22:BA:1089:A:N7	2.51	0.56
22:BA:1188:U:H2'	22:BA:1189:A:C5'	2.36	0.56
22:BA:1560:G:H2'	22:BA:1561:C:C6	2.41	0.56
24:BC:245:THR:OG1	24:BC:249:VAL:HB	2.06	0.56
26:BE:172:ALA:O	26:BE:175:ILE:CG2	2.53	0.56
31:BJ:99:ARG:O	31:BJ:103:ILE:CG2	2.46	0.56
32:BK:2:ILE:O	32:BK:6:THR:HG21	2.05	0.56
35:BN:70:THR:CG2	35:BN:75:ILE:HD11	2.36	0.56
36:BO:67:ASN:O	36:BO:68:LYS:C	2.49	0.56
38:BQ:81:GLY:HA2	38:BQ:116:LEU:HD13	1.88	0.56
38:BQ:97:ILE:C	38:BQ:97:ILE:CD1	2.69	0.56
41:BT:30:ILE:HG12	41:BT:32:LEU:CD2	2.36	0.56
42:BU:94:PHE:O	42:BU:94:PHE:CD1	2.59	0.56
44:BW:24:ARG:CD	44:BW:24:ARG:C	2.77	0.56
47:BZ:24:LEU:HD23	47:BZ:24:LEU:O	2.04	0.56
53:CA:32:A:C2'	53:CA:33:A:H8	2.17	0.56
53:CA:92:U:O2'	53:CA:93:U:C6	2.53	0.56
53:CA:355:C:N4	53:CA:356:A:N6	2.54	0.56
53:CA:1048:G:H21	53:CA:1214:C:H5	1.54	0.56
53:CA:1182:G:C3'	53:CA:1183:U:H5'	2.35	0.56
53:CA:1213:A:HO2'	53:CA:1214:C:H5'	1.67	0.56
11:CK:27:ASN:HA	11:CK:57:SER:HB3	1.86	0.56
11:CK:126:ARG:O	21:CU:33:ARG:NH2	2.39	0.56
12:CL:66:ILE:HA	12:CL:96:THR:OG1	2.06	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:68:LYS:O	17:CQ:69:THR:CG2	2.52	0.56
20:CT:26:MET:HE3	20:CT:30:PHE:HD1	1.70	0.56
22:DA:53:A:H2'	22:DA:54:G:O4'	2.06	0.56
22:DA:321:U:H1'	26:DE:159:LEU:HD11	1.87	0.56
22:DA:347:A:H2'	22:DA:348:A:H8	1.70	0.56
22:DA:377:G:C6	22:DA:378:C:N3	2.73	0.56
22:DA:446:G:H4'	22:DA:447:A:OP1	2.06	0.56
22:DA:449:A:O2'	22:DA:450:G:C5'	2.43	0.56
22:DA:699:A:N6	22:DA:733:G:O2'	2.38	0.56
22:DA:727:A:O2'	22:DA:728:G:C8	2.58	0.56
22:DA:919:U:C2	22:DA:920:A:N7	2.74	0.56
22:DA:962:G:O2'	22:DA:963:U:C6	2.58	0.56
22:DA:1049:C:C2'	22:DA:1050:A:H5'	2.34	0.56
22:DA:1107:G:H2'	22:DA:1108:U:H5'	1.87	0.56
22:DA:1179:G:N2	22:DA:1180:U:C2	2.74	0.56
22:DA:1265:A:C8	22:DA:1267:U:N3	2.73	0.56
22:DA:1420:A:N3	22:DA:2211:A:N7	2.52	0.56
22:DA:1649:G:H2'	22:DA:1650:A:C8	2.40	0.56
22:DA:2106:U:C4	22:DA:2107:G:N7	2.74	0.56
22:DA:2263:C:H4'	22:DA:2329:U:H4'	1.88	0.56
22:DA:2348:U:HO2'	22:DA:2349:G:H8	0.70	0.56
28:DG:162:ARG:C	28:DG:163:TYR:HD2	2.13	0.56
32:DK:1:MET:HB2	32:DK:32:TYR:HB3	1.87	0.56
35:DN:1:MET:O	35:DN:2:ARG:HB2	2.06	0.56
38:DQ:23:TYR:HB2	38:DQ:28:SER:HB3	1.88	0.56
39:DR:70:GLU:CD	39:DR:70:GLU:H	2.14	0.56
43:DV:4:ILE:HD12	43:DV:63:ILE:CG1	2.35	0.56
44:DW:37:VAL:HG13	44:DW:55:ASP:OD2	2.06	0.56
45:DX:69:GLU:HA	45:DX:72:ALA:HB3	1.86	0.56
1:AA:559:A:H4'	1:AA:560:A:O5'	2.06	0.56
1:AA:673:A:H1'	18:AR:63:TYR:CE1	2.40	0.56
1:AA:1240:U:N3	7:AG:29:LEU:HD21	2.21	0.56
1:AA:1322:C:O2'	1:AA:1323:G:H5'	2.06	0.56
3:AC:113:LYS:HB2	3:AC:184:ASN:OD1	2.06	0.56
3:AC:150:VAL:HG12	3:AC:199:VAL:HB	1.88	0.56
5:AE:140:ILE:HG22	5:AE:141:ASP:N	2.21	0.56
7:AG:49:LEU:CD1	7:AG:60:ALA:HB1	2.36	0.56
12:AL:83:GLY:H	12:AL:94:TYR:HB3	1.71	0.56
13:AM:15:VAL:HG13	13:AM:40:GLU:O	2.06	0.56
22:BA:235:U:H2'	22:BA:236:C:H6	1.70	0.56
22:BA:509:C:H5''	22:BA:509:C:C6	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:948:C:H6	22:BA:948:C:O5'	1.89	0.56
22:BA:1061:U:H6	22:BA:1070:A:C1'	2.19	0.56
22:BA:1509:A:N3	22:BA:1510:G:C8	2.74	0.56
22:BA:1585:C:H2'	22:BA:1586:A:C5'	2.36	0.56
22:BA:1818:U:OP2	24:BC:155:ARG:NH1	2.39	0.56
22:BA:2065:C:H1'	22:BA:2449:U:N3	2.19	0.56
22:BA:2214:C:H2'	22:BA:2215:C:H6	1.67	0.56
22:BA:2249:U:N3	22:BA:2253:G:OP2	2.38	0.56
23:BB:61:G:H2'	23:BB:62:C:H6	1.70	0.56
27:BF:84:ILE:O	27:BF:84:ILE:HG13	2.05	0.56
32:BK:21:CYS:CB	32:BK:39:ILE:HD11	2.17	0.56
32:BK:121:GLU:O	32:BK:122:VAL:C	2.49	0.56
33:BL:110:VAL:CG1	33:BL:131:ALA:HB1	2.35	0.56
33:BL:127:VAL:HG11	33:BL:142:ILE:HG21	1.87	0.56
37:BP:58:PHE:CD2	37:BP:58:PHE:N	2.74	0.56
40:BS:95:ARG:O	40:BS:96:ILE:HG12	2.06	0.56
44:BW:28:GLU:N	44:BW:31:LEU:HG	2.21	0.56
53:CA:17:U:H2'	53:CA:18:C:H6	1.70	0.56
53:CA:120:A:C5	53:CA:122:G:C6	2.94	0.56
53:CA:199:A:O2'	53:CA:200:G:O4'	2.24	0.56
53:CA:260:G:OP1	20:CT:74:HIS:HE1	1.89	0.56
53:CA:801:U:O2'	53:CA:802:A:H5'	2.06	0.56
53:CA:1189:U:O2'	3:CC:175:HIS:CD2	2.58	0.56
53:CA:1446:A:C2'	53:CA:1447:A:H5'	2.36	0.56
3:CC:83:VAL:HA	3:CC:86:LEU:HD12	1.88	0.56
3:CC:104:GLU:HG2	3:CC:105:VAL:H	1.71	0.56
4:CD:187:ARG:NH2	4:CD:191:SER:CB	2.68	0.56
5:CE:131:ASN:HD22	5:CE:132:PRO:HD2	1.70	0.56
56:CP:17:TYR:CD1	56:CP:39:PHE:HD2	2.24	0.56
17:CQ:82:VAL:HG13	17:CQ:82:VAL:OXT	2.05	0.56
20:CT:61:ALA:O	20:CT:67:HIS:HA	2.05	0.56
22:DA:39:G:N2	22:DA:441:U:C2	2.73	0.56
22:DA:49:A:N6	22:DA:177:G:C5	2.73	0.56
22:DA:57:C:O2'	41:DT:36:LYS:HE2	2.06	0.56
22:DA:217:A:O2'	22:DA:218:A:C5'	2.54	0.56
22:DA:238:C:H4'	22:DA:608:A:O2'	2.06	0.56
22:DA:412:A:N6	22:DA:2412:A:O4'	2.39	0.56
22:DA:665:U:H2'	22:DA:666:A:H8	1.71	0.56
22:DA:685:A:H1'	22:DA:688:U:O4	2.06	0.56
22:DA:750:A:H2'	22:DA:750:A:N3	2.21	0.56
22:DA:1317:G:H2'	22:DA:1318:U:O4'	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1913:A:C4'	22:DA:1914:C:OP1	2.50	0.56
22:DA:2038:G:H2'	22:DA:2039:U:O4'	2.06	0.56
22:DA:2102:G:C2'	22:DA:2103:C:H5'	2.36	0.56
22:DA:2769:U:C2'	22:DA:2770:G:H5'	2.36	0.56
24:DC:73:ILE:N	24:DC:116:GLN:HE21	2.04	0.56
24:DC:231:HIS:O	24:DC:232:GLY:C	2.48	0.56
25:DD:78:GLY:C	25:DD:80:TRP:CZ3	2.83	0.56
25:DD:181:ASP:C	25:DD:183:GLU:H	2.12	0.56
25:DD:202:ILE:N	25:DD:202:ILE:CD1	2.69	0.56
31:DJ:23:LYS:CB	31:DJ:28:LEU:HD13	2.35	0.56
34:DM:34:LYS:HD3	34:DM:131:VAL:HG21	1.86	0.56
38:DQ:73:ILE:HG13	38:DQ:74:SER:N	2.21	0.56
38:DQ:89:ILE:HG22	38:DQ:91:ARG:H	1.70	0.56
41:DT:5:GLU:HA	41:DT:8:LEU:HD12	1.88	0.56
43:DV:21:ARG:HD3	43:DV:87:GLN:HG2	1.87	0.56
47:DZ:51:SER:HA	47:DZ:54:VAL:HG22	1.88	0.56
1:AA:131:A:O2'	1:AA:132:C:O4'	2.24	0.56
1:AA:290:C:C2'	1:AA:291:U:H5'	2.36	0.56
1:AA:334:C:O2'	1:AA:335:C:H5'	2.06	0.56
1:AA:335:C:H2'	1:AA:336:A:H8	1.71	0.56
1:AA:658:C:O2'	1:AA:659:U:H5'	2.06	0.56
1:AA:736:C:H2'	1:AA:737:C:C6	2.41	0.56
1:AA:859:G:H2'	1:AA:860:A:C8	2.41	0.56
1:AA:1004:A:H2'	1:AA:1005:A:O4'	2.05	0.56
1:AA:1473:G:C2'	1:AA:1474:U:H5'	2.36	0.56
2:AB:13:VAL:CG2	2:AB:207:ARG:NH2	2.68	0.56
4:AD:75:TYR:CD1	4:AD:75:TYR:C	2.84	0.56
4:AD:151:GLN:O	4:AD:152:SER:C	2.48	0.56
6:AF:97:THR:O	6:AF:98:GLU:CG	2.49	0.56
12:AL:74:GLN:O	12:AL:75:GLU:C	2.49	0.56
19:AS:17:LYS:HB3	19:AS:30:LEU:HD23	1.87	0.56
20:AT:3:ILE:O	20:AT:4:LYS:HB2	2.04	0.56
20:AT:29:THR:HA	20:AT:32:LYS:HG2	1.88	0.56
22:BA:313:G:O2'	22:BA:314:C:H5'	2.06	0.56
22:BA:1184:U:C3'	22:BA:1184:U:C6	2.89	0.56
22:BA:1654:A:C1'	25:BD:118:PHE:CD1	2.85	0.56
22:BA:1762:A:H8	22:BA:1762:A:O5'	1.89	0.56
22:BA:2389:G:H5''	22:BA:2390:U:O4'	2.06	0.56
22:BA:2418:A:H2'	22:BA:2419:U:O4'	2.05	0.56
25:BD:190:LYS:O	25:BD:191:GLY:O	2.24	0.56
27:BF:129:MET:CG	27:BF:153:ILE:CD1	2.77	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:132:LEU:N	28:BG:132:LEU:HD23	2.21	0.56
36:BO:48:LEU:HD12	36:BO:87:ILE:HD12	1.86	0.56
39:BR:20:VAL:HG21	39:BR:22:LEU:HD21	1.88	0.56
39:BR:39:LEU:HB3	39:BR:49:ILE:HD13	1.87	0.56
53:CA:106:C:C2'	53:CA:107:G:H5'	2.36	0.56
53:CA:147:G:H2'	53:CA:148:G:H8	1.69	0.56
53:CA:242:G:N2	53:CA:285:C:C2	2.74	0.56
53:CA:785:G:N3	53:CA:785:G:H2'	2.21	0.56
53:CA:937:A:C2	53:CA:1379:G:C6	2.93	0.56
53:CA:974:A:HO2'	53:CA:975:A:P	2.29	0.56
53:CA:1139:G:H4'	53:CA:1140:C:H5'	1.88	0.56
3:CC:25:THR:HG23	14:CN:75:LYS:HD2	1.88	0.56
3:CC:180:ASP:OD2	3:CC:203:LYS:HB2	2.05	0.56
9:CI:59:LYS:HE3	9:CI:60:LEU:CG	2.35	0.56
10:CJ:17:LEU:HD23	10:CJ:96:VAL:HG13	1.88	0.56
22:DA:70:G:O2'	22:DA:71:A:H5''	2.04	0.56
22:DA:192:C:H2'	22:DA:193:U:C5'	2.31	0.56
22:DA:404:A:C2	22:DA:421:C:N3	2.74	0.56
22:DA:477:A:C2'	22:DA:478:A:C8	2.88	0.56
22:DA:659:G:C5	22:DA:660:C:C4	2.93	0.56
22:DA:811:U:C5'	22:DA:812:C:OP2	2.52	0.56
22:DA:1056:G:N2	22:DA:1102:C:C5	2.70	0.56
22:DA:1316:U:O2'	22:DA:1317:G:H5'	2.05	0.56
22:DA:1467:U:C2'	22:DA:1468:U:H5'	2.34	0.56
22:DA:1731:G:N3	22:DA:1733:G:C8	2.74	0.56
22:DA:1816:C:O2'	22:DA:1817:G:P	2.63	0.56
22:DA:1965:C:H2'	22:DA:1966:A:H8	1.71	0.56
22:DA:2093:G:C5	22:DA:2225:A:C5	2.94	0.56
22:DA:2308:G:C8	22:DA:2310:C:N4	2.74	0.56
22:DA:2331:G:H4'	44:DW:41:GLY:N	2.21	0.56
22:DA:2638:G:O2'	22:DA:2639:A:H8	1.87	0.56
22:DA:2663:G:H2'	22:DA:2664:G:C8	2.41	0.56
22:DA:2868:A:O2'	22:DA:2869:G:C5'	2.54	0.56
22:DA:2891:U:C2'	22:DA:2892:G:H5'	2.36	0.56
57:DB:5:U:H2'	57:DB:6:G:H8	1.70	0.56
24:DC:9:SER:O	24:DC:12:ARG:HB2	2.05	0.56
58:DF:36:ASN:O	58:DF:37:MET:CB	2.54	0.56
32:DK:2:ILE:O	32:DK:3:GLN:CG	2.53	0.56
34:DM:72:PRO:O	34:DM:73:ILE:CB	2.54	0.56
37:DP:28:LYS:H	37:DP:28:LYS:NZ	2.04	0.56
44:DW:18:LYS:H	44:DW:36:ILE:HG13	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:28:GLU:HG3	44:DW:29:SER:H	1.71	0.56
1:AA:284:C:H2'	1:AA:285:C:H6	1.71	0.55
1:AA:366:A:HO2'	1:AA:394:G:N2	2.03	0.55
1:AA:373:A:H2'	1:AA:374:A:H8	1.70	0.55
1:AA:418:C:N4	62:AA:1717:HOH:O	2.39	0.55
1:AA:737:C:H2'	1:AA:738:C:C6	2.40	0.55
1:AA:807:A:H2'	1:AA:808:C:C6	2.40	0.55
1:AA:978:A:O2'	1:AA:1322:C:H5	1.88	0.55
1:AA:1507:A:C2	1:AA:1508:A:C5	2.94	0.55
2:AB:86:CYS:HB2	2:AB:88:GLN:CG	2.33	0.55
2:AB:161:PHE:HA	2:AB:183:PHE:O	2.06	0.55
3:AC:142:ARG:HB3	3:AC:143:LEU:HD13	1.87	0.55
5:AE:62:ALA:O	5:AE:65:LYS:HB2	2.06	0.55
5:AE:113:VAL:O	5:AE:117:ALA:HB2	2.06	0.55
6:AF:4:TYR:O	6:AF:63:ASN:HA	2.06	0.55
7:AG:37:THR:O	7:AG:41:ILE:HG13	2.06	0.55
7:AG:49:LEU:HD12	7:AG:60:ALA:HB1	1.88	0.55
9:AI:60:LEU:HD23	9:AI:60:LEU:H	1.71	0.55
10:AJ:32:THR:HG23	10:AJ:33:GLY:N	2.22	0.55
12:AL:85:ARG:HG3	12:AL:86:VAL:N	2.20	0.55
20:AT:20:ASN:O	20:AT:24:ARG:HB2	2.05	0.55
22:BA:78:U:H2'	22:BA:79:C:C6	2.41	0.55
22:BA:670:A:H4'	22:BA:671:C:O5'	2.05	0.55
22:BA:726:G:O2'	22:BA:727:A:OP2	2.24	0.55
22:BA:1396:U:H5''	22:BA:1397:U:OP2	2.06	0.55
22:BA:1872:A:C2'	22:BA:1873:G:O4'	2.53	0.55
22:BA:2847:U:C2'	22:BA:2848:G:H5'	2.36	0.55
24:BC:20:ASN:C	24:BC:20:ASN:ND2	2.64	0.55
31:BJ:44:TYR:HD2	38:BQ:63:ARG:CG	2.19	0.55
36:BO:88:LYS:HE2	36:BO:116:GLN:HE22	1.72	0.55
41:BT:29:THR:H	41:BT:86:THR:HA	1.69	0.55
43:BV:29:ILE:O	43:BV:91:PHE:HB2	2.07	0.55
53:CA:34:C:O2	53:CA:34:C:H2'	2.05	0.55
53:CA:131:A:C2	53:CA:132:C:N3	2.73	0.55
53:CA:168:G:C2'	53:CA:169:C:H5'	2.36	0.55
53:CA:373:A:H2'	53:CA:374:A:C8	2.40	0.55
53:CA:393:A:OP2	56:CP:12:LYS:HD2	2.06	0.55
53:CA:406:G:N7	53:CA:495:A:H2'	2.21	0.55
53:CA:439:U:H2'	53:CA:440:C:H6	1.71	0.55
53:CA:608:A:H2'	53:CA:609:A:O4'	2.07	0.55
53:CA:1014:A:C4'	19:CS:13:HIS:CD2	2.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:82:ALA:HB1	2:CB:217:ALA:HB1	1.89	0.55
2:CB:128:LEU:O	2:CB:129:THR:C	2.48	0.55
4:CD:25:ARG:O	4:CD:26:ALA:C	2.48	0.55
5:CE:89:THR:OG1	5:CE:90:GLY:N	2.35	0.55
55:CM:106:ARG:CZ	55:CM:112:ARG:HB3	2.36	0.55
56:CP:6:LEU:HD13	56:CP:17:TYR:CD2	2.40	0.55
22:DA:297:G:C2	22:DA:342:A:C2	2.94	0.55
22:DA:491:G:O2'	22:DA:492:A:C5'	2.54	0.55
22:DA:492:A:N1	40:DS:49:LYS:CE	2.68	0.55
22:DA:972:A:H3'	22:DA:973:A:H5''	1.87	0.55
22:DA:1331:G:C4	22:DA:1333:G:N7	2.73	0.55
22:DA:2367:G:O2'	22:DA:2368:C:H5'	2.06	0.55
22:DA:2748:A:C2	22:DA:2757:A:C5	2.94	0.55
22:DA:2822:G:C5'	25:DD:164:GLN:HE22	2.18	0.55
25:DD:1:MET:SD	25:DD:100:LEU:HD11	2.46	0.55
58:DF:67:THR:O	58:DF:84:ILE:HG22	2.06	0.55
58:DF:113:PHE:CZ	58:DF:116:LEU:HD22	2.41	0.55
33:DL:93:ASN:O	33:DL:95:LEU:N	2.38	0.55
35:DN:7:GLY:O	35:DN:8:ARG:HB2	2.04	0.55
35:DN:28:LEU:O	35:DN:32:GLU:N	2.36	0.55
38:DQ:69:ARG:HB2	38:DQ:69:ARG:HH21	1.70	0.55
44:DW:36:ILE:CG2	44:DW:39:GLN:HB2	2.35	0.55
45:DX:31:ASN:ND2	45:DX:31:ASN:N	2.42	0.55
47:DZ:53:MET:O	47:DZ:54:VAL:HG13	2.06	0.55
51:D3:31:ILE:HG21	51:D3:34:LYS:HZ2	1.71	0.55
1:AA:16:A:C2'	1:AA:17:U:H5'	2.36	0.55
1:AA:184:G:HO2'	1:AA:185:U:H6	1.49	0.55
1:AA:425:G:H2'	1:AA:426:U:H5'	1.88	0.55
1:AA:430:A:C4	1:AA:431:A:C8	2.95	0.55
1:AA:1112:C:C4	3:AC:177:LEU:HD22	2.41	0.55
1:AA:1250:A:N3	1:AA:1370:G:O2'	2.31	0.55
2:AB:41:ASN:OD1	2:AB:44:LYS:HB2	2.06	0.55
5:AE:104:ILE:O	5:AE:104:ILE:HG23	2.06	0.55
5:AE:135:VAL:HG22	5:AE:136:VAL:N	2.19	0.55
22:BA:480:A:H2	22:BA:499:U:O2	1.89	0.55
22:BA:973:A:O4'	22:BA:1188:U:C6	2.59	0.55
22:BA:2026:U:C2	22:BA:2027:G:C8	2.94	0.55
22:BA:2145:C:H3'	22:BA:2146:C:H5''	1.87	0.55
22:BA:2439:A:H4'	22:BA:2440:C:O5'	2.06	0.55
22:BA:2730:C:O3'	25:BD:174:SER:HB3	2.07	0.55
22:BA:2823:A:C5	22:BA:2824:C:C5	2.93	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:33:LEU:CD2	24:BC:62:ARG:CD	2.81	0.55
24:BC:71:ASP:HA	24:BC:117:SER:O	2.07	0.55
27:BF:134:GLN:HG2	27:BF:135:ILE:N	2.22	0.55
28:BG:84:LYS:CD	28:BG:133:LYS:HG2	2.34	0.55
31:BJ:44:TYR:C	31:BJ:45:THR:HG22	2.31	0.55
33:BL:95:LEU:CD2	33:BL:100:ILE:HG12	2.31	0.55
38:BQ:63:ARG:NH2	38:BQ:95:ALA:C	2.64	0.55
43:BV:70:ILE:HD12	43:BV:93:ARG:HH21	1.70	0.55
53:CA:15:G:C2	53:CA:16:A:C4	2.94	0.55
53:CA:67:C:OP1	53:CA:199:A:H5''	2.07	0.55
53:CA:158:G:H2'	53:CA:159:G:H8	1.70	0.55
53:CA:1365:G:O2'	53:CA:1366:C:H5'	2.06	0.55
4:CD:97:LEU:HB2	4:CD:134:TYR:HB3	1.88	0.55
55:CM:13:HIS:HB3	55:CM:16:ILE:CG1	2.37	0.55
17:CQ:45:VAL:HG11	17:CQ:60:ILE:HG22	1.85	0.55
21:CU:28:LEU:C	21:CU:28:LEU:CD2	2.80	0.55
22:DA:7:G:H4'	31:DJ:15:TRP:CH2	2.41	0.55
22:DA:223:A:C4	22:DA:408:G:H1'	2.41	0.55
22:DA:224:U:C4	22:DA:225:C:C5	2.94	0.55
22:DA:597:G:C2	22:DA:661:A:C2	2.95	0.55
22:DA:841:G:C2'	22:DA:842:U:H5'	2.36	0.55
22:DA:1153:C:H2'	22:DA:1154:G:H8	1.70	0.55
22:DA:1303:G:O2'	22:DA:1304:A:H8	1.88	0.55
22:DA:1499:C:C2'	22:DA:1500:G:H5'	2.35	0.55
22:DA:2148:G:N2	22:DA:2149:U:O4	2.36	0.55
22:DA:2216:G:O2'	22:DA:2217:G:H5'	2.06	0.55
22:DA:2303:G:C6	22:DA:2314:A:N6	2.74	0.55
22:DA:2344:U:OP1	49:D1:36:LYS:HD2	2.06	0.55
22:DA:2414:G:C2'	22:DA:2415:G:H5'	2.35	0.55
22:DA:2461:A:C2	22:DA:2490:G:N2	2.74	0.55
22:DA:2677:G:C4	22:DA:2731:G:N2	2.74	0.55
57:DB:55:U:H1'	58:DF:25:MET:SD	2.45	0.55
24:DC:93:VAL:HG12	24:DC:101:ARG:N	2.21	0.55
25:DD:151:THR:HG22	25:DD:152:PRO:N	2.21	0.55
28:DG:95:ALA:HB3	28:DG:127:GLN:HA	1.87	0.55
29:DH:115:VAL:CG1	29:DH:132:PHE:HB2	2.24	0.55
29:DH:132:PHE:CZ	29:DH:134:VAL:CB	2.83	0.55
34:DM:29:GLY:CA	34:DM:64:TRP:HZ3	2.19	0.55
34:DM:74:THR:HB	34:DM:87:GLY:O	2.06	0.55
42:DU:10:VAL:O	42:DU:21:ARG:HA	2.06	0.55
42:DU:22:GLY:HA3	42:DU:36:GLU:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DY:25:GLN:HB2	46:DY:46:VAL:HG11	1.87	0.55
1:AA:481:G:O2'	1:AA:482:A:H8	1.89	0.55
1:AA:513:C:H2'	1:AA:514:C:H6	1.71	0.55
1:AA:600:A:H2'	1:AA:601:G:H8	1.70	0.55
1:AA:701:U:H5''	1:AA:703:G:O4'	2.05	0.55
1:AA:877:G:N3	8:AH:1:SER:N	2.54	0.55
1:AA:946:A:C2	1:AA:1236:A:C2	2.94	0.55
1:AA:1363:A:O2'	1:AA:1365:G:N7	2.36	0.55
2:AB:61:SER:HA	2:AB:223:GLY:C	2.31	0.55
3:AC:119:ILE:HD11	3:AC:133:MET:HA	1.88	0.55
5:AE:131:ASN:O	5:AE:135:VAL:HG12	2.06	0.55
7:AG:69:ARG:CD	7:AG:95:ARG:HG2	2.37	0.55
10:AJ:53:ILE:HD11	14:AN:84:ARG:NH2	2.21	0.55
14:AN:11:LYS:HB2	14:AN:11:LYS:HZ3	1.71	0.55
22:BA:782:A:H4'	22:BA:783:A:O5'	2.06	0.55
22:BA:1059:G:H4'	30:BI:116:MET:HE1	1.88	0.55
22:BA:1138:G:H5''	22:BA:1139:G:OP2	2.05	0.55
22:BA:1378:A:HO2'	22:BA:1379:U:H3'	1.71	0.55
22:BA:1381:G:H1'	22:BA:1571:A:N1	2.22	0.55
22:BA:1767:G:C2	22:BA:1986:C:C2	2.94	0.55
22:BA:2832:U:HO2'	22:BA:2833:U:P	2.29	0.55
24:BC:33:LEU:HD21	24:BC:62:ARG:HD3	1.87	0.55
32:BK:59:LYS:HG3	32:BK:89:ASN:HD22	1.70	0.55
37:BP:4:ILE:HA	37:BP:7:LEU:HB2	1.87	0.55
44:BW:76:ARG:CG	44:BW:76:ARG:NH2	2.52	0.55
52:B4:15:LYS:O	52:B4:16:ILE:O	2.24	0.55
53:CA:266:G:O2'	53:CA:267:C:H3'	2.06	0.55
53:CA:453:G:H2'	53:CA:454:G:C8	2.41	0.55
53:CA:649:A:H2'	53:CA:650:G:O4'	2.07	0.55
53:CA:796:C:H4'	11:CK:126:ARG:NH2	2.21	0.55
53:CA:1053:G:OP1	53:CA:1054:C:H3'	2.07	0.55
53:CA:1150:A:N6	53:CA:1151:A:N6	2.53	0.55
53:CA:1279:G:H2'	10:CJ:45:ARG:HH21	1.72	0.55
53:CA:1421:G:H1	53:CA:1479:C:H42	1.55	0.55
3:CC:130:ARG:O	3:CC:133:MET:HG2	2.06	0.55
3:CC:152:VAL:CG2	3:CC:156:LEU:HD21	2.32	0.55
4:CD:77:GLU:OE1	4:CD:81:LEU:HD21	2.07	0.55
12:CL:51:VAL:HG12	12:CL:52:CYS:N	2.21	0.55
15:CO:69:LEU:O	15:CO:69:LEU:HD22	2.06	0.55
17:CQ:27:PHE:HD1	17:CQ:36:PHE:HB3	1.71	0.55
19:CS:15:LEU:C	19:CS:15:LEU:HD23	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:64:A:H2'	22:DA:65:U:O4'	2.06	0.55
22:DA:511:U:H5''	22:DA:1235:G:H4'	1.89	0.55
22:DA:866:A:HO2'	22:DA:867:C:H6	1.50	0.55
22:DA:1069:A:O2'	22:DA:1070:A:C5'	2.46	0.55
22:DA:1116:G:C2	22:DA:1117:C:N1	2.73	0.55
22:DA:1278:C:O2'	35:DN:27:SER:HB3	2.06	0.55
22:DA:1667:G:P	32:DK:6:THR:HA	2.47	0.55
22:DA:2473:U:OP2	22:DA:2473:U:H6	1.89	0.55
22:DA:2812:G:C6	22:DA:2813:A:C6	2.95	0.55
57:DB:12:C:N3	44:DW:73:PRO:HA	2.22	0.55
26:DE:135:ALA:C	26:DE:137:LYS:H	2.12	0.55
58:DF:74:ALA:HB1	58:DF:76:PHE:CD2	2.41	0.55
32:DK:20:MET:O	32:DK:41:ILE:HG13	2.06	0.55
34:DM:15:GLY:O	34:DM:16:ARG:HB3	2.06	0.55
34:DM:71:LYS:HG3	34:DM:72:PRO:HD2	1.87	0.55
36:DO:108:ASP:C	36:DO:110:ALA:H	2.14	0.55
37:DP:51:ASN:O	37:DP:52:ARG:HD3	2.07	0.55
37:DP:62:LYS:O	37:DP:63:ILE:HB	2.06	0.55
37:DP:105:LYS:HA	37:DP:108:ARG:CZ	2.36	0.55
41:DT:14:PRO:HG2	41:DT:15:HIS:H	1.71	0.55
44:DW:23:LYS:HD2	44:DW:24:ARG:CA	2.36	0.55
46:DY:6:LEU:HD21	46:DY:56:LEU:HD12	1.88	0.55
47:DZ:40:THR:HG22	47:DZ:42:ALA:H	1.72	0.55
1:AA:14:U:H2'	1:AA:16:A:OP2	2.06	0.55
1:AA:21:G:N2	1:AA:22:G:C6	2.74	0.55
1:AA:66:A:O4'	1:AA:173:U:C4	2.60	0.55
1:AA:66:A:O5'	1:AA:66:A:C8	2.59	0.55
1:AA:74:A:C2	1:AA:75:G:C4	2.94	0.55
1:AA:1258:G:HO2'	1:AA:1259:C:H6	1.52	0.55
1:AA:1358:U:C5	1:AA:1359:C:C4	2.95	0.55
2:AB:162:VAL:CG2	2:AB:184:ALA:HB2	2.37	0.55
3:AC:6:PRO:HG2	3:AC:183:TYR:CD2	2.41	0.55
3:AC:89:VAL:O	3:AC:93:ILE:HG13	2.05	0.55
22:BA:38:A:O2'	26:BE:43:THR:HA	2.06	0.55
22:BA:50:U:H4'	22:BA:51:G:OP2	2.06	0.55
22:BA:226:A:N6	22:BA:227:A:N1	2.53	0.55
22:BA:455:C:N3	22:BA:472:A:H2'	2.21	0.55
22:BA:581:C:OP1	38:BQ:32:ARG:HB2	2.06	0.55
22:BA:876:C:C2'	22:BA:877:A:O4'	2.53	0.55
22:BA:1045:C:H5'	22:BA:1047:G:O4'	2.07	0.55
22:BA:1247:A:C4	22:BA:1249:U:C5	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2747:G:O2'	28:BG:66:THR:HG22	2.06	0.55
23:BB:34:A:C2	23:BB:49:C:O2	2.59	0.55
23:BB:46:A:C5	23:BB:47:C:C5	2.94	0.55
24:BC:156:SER:O	24:BC:194:VAL:HG11	2.07	0.55
30:BI:104:GLN:O	30:BI:105:LEU:CB	2.54	0.55
31:BJ:2:LYS:N	31:BJ:2:LYS:CD	2.65	0.55
31:BJ:54:ILE:C	31:BJ:54:ILE:HD12	2.32	0.55
32:BK:88:ASN:ND2	32:BK:90:ASN:H	2.03	0.55
36:BO:55:GLU:O	36:BO:56:LYS:C	2.49	0.55
47:BZ:48:ASN:O	47:BZ:51:SER:HB3	2.06	0.55
53:CA:204:G:H2'	53:CA:205:A:H8	1.71	0.55
53:CA:658:C:H1'	15:CO:21:THR:HG21	1.88	0.55
53:CA:1129:C:O2'	53:CA:1130:A:H8	1.89	0.55
53:CA:1278:G:O2'	53:CA:1279:G:C2	2.60	0.55
53:CA:1409:C:H6	53:CA:1409:C:O5'	1.90	0.55
53:CA:1480:A:C4	53:CA:1481:U:C6	2.95	0.55
3:CC:53:ARG:HH11	3:CC:53:ARG:HB2	1.71	0.55
5:CE:104:ILE:N	5:CE:122:VAL:H	1.96	0.55
54:CG:100:MET:HA	54:CG:103:ILE:HG13	1.87	0.55
56:CP:6:LEU:HB2	56:CP:17:TYR:HB3	1.88	0.55
22:DA:547:A:H8	22:DA:548:G:H5'	1.71	0.55
22:DA:845:A:C2	22:DA:847:U:H1'	2.41	0.55
22:DA:1179:G:O2'	22:DA:1180:U:H5'	2.06	0.55
22:DA:1431:A:O2'	22:DA:1432:G:H5'	2.06	0.55
22:DA:1435:G:C2	22:DA:1558:C:N4	2.74	0.55
22:DA:2094:A:HO2'	22:DA:2095:A:H8	1.55	0.55
22:DA:2408:U:HO2'	22:DA:2409:G:H8	1.53	0.55
22:DA:2422:C:H2'	22:DA:2423:U:H5''	1.89	0.55
22:DA:2440:C:H2'	22:DA:2441:U:O4'	2.05	0.55
22:DA:2615:U:O2'	22:DA:2616:C:C5'	2.54	0.55
22:DA:2800:A:H2'	22:DA:2801:G:C4'	2.37	0.55
22:DA:2881:U:O2'	22:DA:2882:A:H5'	2.07	0.55
25:DD:40:LEU:HD12	25:DD:40:LEU:N	2.20	0.55
25:DD:124:ARG:HD3	25:DD:125:TRP:HE1	1.68	0.55
25:DD:193:VAL:HB	25:DD:194:PRO:HD2	1.88	0.55
26:DE:5:LEU:HD23	26:DE:120:VAL:HG22	1.87	0.55
26:DE:112:LEU:HD11	26:DE:186:VAL:HG11	1.88	0.55
26:DE:131:THR:HG22	26:DE:161:ALA:H	1.71	0.55
58:DF:71:LYS:O	58:DF:72:SER:HB3	2.06	0.55
29:DH:61:VAL:CG1	29:DH:62:LEU:H	2.20	0.55
52:D4:8:LYS:HA	52:D4:16:ILE:HD11	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:16:A:HO2'	1:AA:17:U:H5'	1.71	0.55
1:AA:49:U:C5	1:AA:364:A:C6	2.95	0.55
1:AA:633:G:C2'	1:AA:634:C:H5'	2.36	0.55
1:AA:923:A:H2'	1:AA:924:C:C6	2.41	0.55
1:AA:1381:U:HO2'	1:AA:1382:C:H6	1.54	0.55
4:AD:190:LEU:O	4:AD:191:SER:CB	2.55	0.55
9:AI:98:ARG:HG2	9:AI:98:ARG:HH11	1.72	0.55
10:AJ:26:VAL:HG12	10:AJ:30:LYS:HE2	1.87	0.55
13:AM:2:ARG:HG3	13:AM:3:ILE:H	1.70	0.55
15:AO:39:GLN:OE1	22:BA:716:A:H1'	2.07	0.55
22:BA:1343:G:O2'	22:BA:1344:U:H5'	2.06	0.55
22:BA:1588:G:C2	22:BA:1589:U:C5	2.93	0.55
22:BA:2430:A:H5'	22:BA:2431:U:OP2	2.06	0.55
22:BA:2525:G:C2	22:BA:2539:C:C2	2.95	0.55
24:BC:259:ASN:O	24:BC:260:LYS:HB2	2.07	0.55
26:BE:46:GLN:HB2	26:BE:83:VAL:HG11	1.88	0.55
28:BG:174:LYS:HD2	28:BG:174:LYS:C	2.31	0.55
29:BH:61:VAL:O	29:BH:61:VAL:HG12	2.07	0.55
30:BI:58:ILE:O	30:BI:60:VAL:HG23	2.06	0.55
36:BO:102:ARG:O	36:BO:105:ALA:HB3	2.06	0.55
44:BW:29:SER:N	44:BW:63:ASP:HB3	2.21	0.55
45:BX:46:VAL:HG21	45:BX:67:LEU:HD11	1.88	0.55
47:BZ:8:GLN:O	47:BZ:9:THR:HG22	2.07	0.55
53:CA:386:C:C5	53:CA:387:U:C5	2.95	0.55
9:CI:125:GLN:H	9:CI:125:GLN:NE2	2.04	0.55
55:CM:94:LEU:HD23	55:CM:101:THR:HG22	1.89	0.55
20:CT:26:MET:CE	20:CT:30:PHE:HD1	2.19	0.55
20:CT:73:ARG:HG2	20:CT:73:ARG:NH1	2.14	0.55
22:DA:37:C:H1'	26:DE:45:ALA:HB2	1.89	0.55
22:DA:64:A:H8	22:DA:64:A:O5'	1.89	0.55
22:DA:457:A:N1	22:DA:470:A:H5''	2.21	0.55
22:DA:513:A:H2'	22:DA:514:A:H8	1.72	0.55
22:DA:870:U:H2'	22:DA:871:U:C5'	2.35	0.55
22:DA:1278:C:O2'	22:DA:1279:G:H5'	2.05	0.55
22:DA:1695:G:H8	24:DC:7:PRO:O	1.89	0.55
22:DA:1721:G:H1'	22:DA:1739:A:N6	2.21	0.55
22:DA:1792:G:H5''	24:DC:203:VAL:CG2	2.37	0.55
22:DA:1931:U:OP2	22:DA:1968:G:N2	2.38	0.55
24:DC:140:VAL:HG21	24:DC:161:VAL:HB	1.87	0.55
25:DD:12:THR:CG2	25:DD:13:ARG:N	2.69	0.55
26:DE:147:LEU:HD13	26:DE:147:LEU:C	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DE:175:ILE:O	26:DE:175:ILE:HG23	2.07	0.55
58:DF:35:LEU:HA	58:DF:152:ASP:O	2.07	0.55
58:DF:90:LEU:HB3	58:DF:95:MET:HG3	1.88	0.55
32:DK:80:ASP:HB2	37:DP:67:GLU:OE1	2.07	0.55
35:DN:56:LYS:HE2	35:DN:87:PHE:O	2.05	0.55
35:DN:103:ARG:HG3	35:DN:104:ALA:N	2.22	0.55
37:DP:16:VAL:CG1	37:DP:19:PHE:HE2	2.19	0.55
44:DW:44:PHE:HE2	44:DW:76:ARG:NE	2.04	0.55
46:DY:1:MET:N	46:DY:1:MET:CE	2.62	0.55
1:AA:71:A:H3'	1:AA:71:A:OP2	2.06	0.55
1:AA:109:A:H4'	1:AA:110:C:OP2	2.07	0.55
1:AA:563:A:H1'	1:AA:566:G:O2'	2.06	0.55
1:AA:804:U:H5''	1:AA:805:C:OP2	2.06	0.55
1:AA:1239:A:H4'	1:AA:1240:U:O5'	2.05	0.55
7:AG:92:PRO:C	7:AG:93:VAL:HG22	2.31	0.55
15:AO:74:VAL:O	15:AO:75:ALA:C	2.49	0.55
18:AR:31:TYR:C	18:AR:39:VAL:HG23	2.32	0.55
19:AS:19:GLU:HA	19:AS:19:GLU:OE2	2.06	0.55
19:AS:40:PHE:HB2	19:AS:42:ASN:ND2	2.21	0.55
22:BA:163:C:O2'	22:BA:164:C:O5'	2.23	0.55
22:BA:309:A:O3'	42:BU:15:GLY:HA2	2.05	0.55
22:BA:395:U:O2'	22:BA:396:G:C8	2.60	0.55
22:BA:792:A:H5''	22:BA:793:A:H5'	1.89	0.55
22:BA:817:C:H2'	22:BA:818:G:H5'	1.87	0.55
22:BA:1668:A:N3	22:BA:1674:G:C8	2.75	0.55
23:BB:58:A:H2'	23:BB:59:A:C8	2.42	0.55
23:BB:112:G:H2'	23:BB:113:C:C6	2.42	0.55
25:BD:92:VAL:O	25:BD:93:GLY:C	2.49	0.55
26:BE:132:LYS:HB3	26:BE:132:LYS:HZ2	1.70	0.55
27:BF:16:MET:O	27:BF:20:ASN:HA	2.07	0.55
34:BM:5:LYS:HB3	34:BM:5:LYS:HZ2	1.71	0.55
36:BO:36:TYR:N	36:BO:36:TYR:HD2	2.03	0.55
44:BW:13:ARG:O	44:BW:14:ASP:C	2.50	0.55
53:CA:119:A:C4'	53:CA:120:A:O5'	2.54	0.55
53:CA:265:G:O3'	17:CQ:67:SER:HA	2.06	0.55
53:CA:765:G:C4	53:CA:812:G:C6	2.95	0.55
53:CA:977:A:H8	53:CA:1223:C:N3	2.04	0.55
53:CA:1072:G:C5	53:CA:1073:U:C4	2.95	0.55
53:CA:1280:A:H5''	10:CJ:43:PRO:HG2	1.89	0.55
53:CA:1283:U:H2'	53:CA:1284:C:C6	2.41	0.55
53:CA:1350:A:O2'	53:CA:1351:U:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:70:GLN:HE22	4:CD:133:SER:HB3	1.72	0.55
4:CD:78:ALA:HA	4:CD:81:LEU:HD12	1.88	0.55
55:CM:106:ARG:HH21	55:CM:112:ARG:NE	2.04	0.55
15:CO:23:SER:HB3	15:CO:26:VAL:HG23	1.87	0.55
18:CR:41:SER:HA	18:CR:46:THR:HG22	1.89	0.55
22:DA:126:A:H2'	50:D2:46:LYS:HE2	1.88	0.55
22:DA:152:A:C2'	22:DA:153:U:H5'	2.37	0.55
22:DA:230:G:C2	22:DA:231:A:N7	2.74	0.55
22:DA:233:A:O2'	22:DA:234:U:C6	2.59	0.55
22:DA:352:A:C4	22:DA:353:C:H1'	2.41	0.55
22:DA:827:U:H6	62:DA:3354:HOH:O	1.90	0.55
22:DA:919:U:H2'	22:DA:920:A:H8	1.71	0.55
22:DA:1183:U:H2'	22:DA:1184:U:H6	1.71	0.55
22:DA:1655:A:H5'	25:DD:118:PHE:CE1	2.42	0.55
22:DA:1769:U:H1'	22:DA:1984:G:N2	2.21	0.55
22:DA:2147:A:H5''	22:DA:2147:A:N3	2.21	0.55
22:DA:2527:C:C2'	22:DA:2528:U:H5'	2.36	0.55
22:DA:2531:A:H5''	28:DG:156:TYR:CZ	2.40	0.55
22:DA:2834:G:N9	22:DA:2879:A:N6	2.54	0.55
24:DC:196:ASN:OD1	24:DC:199:HIS:HB2	2.06	0.55
34:DM:73:ILE:HG13	34:DM:93:VAL:HG11	1.88	0.55
36:DO:11:ALA:O	36:DO:15:ARG:HG3	2.06	0.55
37:DP:7:LEU:O	37:DP:7:LEU:HD12	2.06	0.55
37:DP:32:VAL:HA	37:DP:37:LYS:HA	1.88	0.55
49:D1:47:ILE:HD12	49:D1:47:ILE:H	1.68	0.55
1:AA:122:G:O2'	1:AA:123:U:H5'	2.06	0.55
1:AA:197:A:H1'	1:AA:198:G:O4'	2.06	0.55
1:AA:666:G:C5	1:AA:741:G:C6	2.95	0.55
1:AA:1158:C:O2	1:AA:1158:C:H2'	2.07	0.55
3:AC:156:LEU:C	3:AC:158:GLY:H	2.13	0.55
6:AF:66:ALA:HB1	6:AF:67:PRO:HD2	1.89	0.55
7:AG:144:ALA:C	7:AG:146:ALA:N	2.63	0.55
12:AL:2:THR:HB	12:AL:5:GLN:H	1.71	0.55
15:AO:86:LEU:C	15:AO:88:ARG:H	2.13	0.55
22:BA:1731:G:N1	22:BA:1733:G:C6	2.74	0.55
22:BA:1992:G:N2	22:BA:1996:C:O2'	2.40	0.55
22:BA:2197:U:OP1	4:CD:150:LYS:HE3	2.07	0.55
22:BA:2358:A:C4	22:BA:2359:C:C6	2.94	0.55
22:BA:2682:A:C8	25:BD:11:MET:CG	2.90	0.55
22:BA:2823:A:H2'	22:BA:2824:C:H6	1.72	0.55
25:BD:42:ASN:O	25:BD:42:ASN:ND2	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:101:PHE:N	25:BD:101:PHE:HD1	2.05	0.55
35:BN:74:GLU:O	35:BN:77:ALA:HB3	2.06	0.55
39:BR:27:ILE:HG13	39:BR:33:VAL:CG1	2.35	0.55
44:BW:72:GLY:C	44:BW:74:LYS:H	2.14	0.55
53:CA:15:G:H5'	53:CA:1396:A:O2'	2.06	0.55
53:CA:158:G:C5	53:CA:164:G:C6	2.95	0.55
53:CA:330:C:O2'	53:CA:331:G:C8	2.50	0.55
53:CA:725:G:H2'	53:CA:726:C:H6	1.72	0.55
53:CA:736:C:H2'	53:CA:737:C:C6	2.41	0.55
53:CA:828:U:C5	53:CA:829:G:C8	2.95	0.55
53:CA:978:A:C6	53:CA:1318:A:C6	2.94	0.55
53:CA:1014:A:C2	19:CS:33:TRP:HB2	2.41	0.55
53:CA:1101:A:H1'	53:CA:1102:A:O4'	2.05	0.55
53:CA:1301:U:O2'	53:CA:1302:C:C6	2.60	0.55
3:CC:116:ALA:HB2	3:CC:199:VAL:CG2	2.36	0.55
5:CE:65:LYS:NZ	5:CE:68:ARG:HD3	2.22	0.55
5:CE:80:LEU:H	5:CE:121:ASN:ND2	2.04	0.55
5:CE:110:MET:HG2	5:CE:139:THR:HG21	1.88	0.55
54:CG:11:ILE:CD1	54:CG:24:LYS:HB2	2.36	0.55
12:CL:97:VAL:O	12:CL:98:ARG:C	2.49	0.55
55:CM:36:ALA:HB3	55:CM:55:LEU:HD11	1.89	0.55
14:CN:79:SER:CB	14:CN:81:ILE:HD11	2.37	0.55
22:DA:202:U:C3'	22:DA:203:A:C8	2.89	0.55
22:DA:538:A:O2'	31:DJ:8:PRO:CG	2.54	0.55
22:DA:538:A:C2	22:DA:556:A:C4	2.94	0.55
22:DA:827:U:H5''	62:DA:3354:HOH:O	2.06	0.55
22:DA:1000:A:N1	22:DA:1001:A:C2	2.75	0.55
22:DA:1287:A:O2'	22:DA:1288:G:H5'	2.07	0.55
22:DA:1314:C:OP1	22:DA:1332:G:H5''	2.07	0.55
22:DA:1498:C:O2'	22:DA:1499:C:C5'	2.55	0.55
22:DA:2217:G:O2'	22:DA:2218:G:C5'	2.54	0.55
22:DA:2290:G:H2'	22:DA:2291:U:C6	2.42	0.55
22:DA:2331:G:H2'	22:DA:2332:C:O4'	2.07	0.55
57:DB:15:A:H1'	57:DB:109:A:N7	2.21	0.55
24:DC:19:VAL:O	24:DC:21:PRO:HD3	2.07	0.55
24:DC:94:LEU:HD13	24:DC:100:ARG:CD	2.34	0.55
25:DD:187:LEU:O	25:DD:188:LEU:HD23	2.07	0.55
26:DE:42:GLY:HA3	26:DE:90:GLN:O	2.07	0.55
26:DE:134:LEU:HA	26:DE:137:LYS:HB3	1.88	0.55
28:DG:28:LYS:H	28:DG:79:THR:HG22	1.72	0.55
29:DH:54:LEU:HA	29:DH:57:LYS:HG3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:94:ALA:O	31:DJ:95:ARG:HB3	2.05	0.55
33:DL:116:VAL:HG13	33:DL:117:THR:H	1.70	0.55
36:DO:63:LYS:C	36:DO:63:LYS:HD3	2.32	0.55
37:DP:16:VAL:HG13	37:DP:19:PHE:HE2	1.72	0.55
41:DT:39:THR:OG1	41:DT:42:GLU:HG3	2.07	0.55
1:AA:101:A:C2'	1:AA:102:G:H5'	2.37	0.55
1:AA:184:G:O2'	1:AA:185:U:H6	1.90	0.55
1:AA:436:C:O2'	1:AA:437:U:H5'	2.06	0.55
1:AA:501:C:O2'	1:AA:502:A:H5'	2.06	0.55
1:AA:673:A:H1'	18:AR:63:TYR:HE1	1.72	0.55
1:AA:877:G:H21	8:AH:1:SER:CB	2.16	0.55
1:AA:1417:G:C6	1:AA:1482:G:C6	2.95	0.55
1:AA:1461:G:H2'	1:AA:1462:C:H6	1.71	0.55
2:AB:48:MET:HA	2:AB:48:MET:CE	2.29	0.55
2:AB:49:PHE:C	2:AB:49:PHE:CD1	2.85	0.55
2:AB:74:ALA:O	2:AB:75:ALA:CB	2.55	0.55
5:AE:100:GLU:CB	5:AE:121:ASN:HA	2.35	0.55
14:AN:50:LEU:O	14:AN:52:ARG:N	2.39	0.55
16:AP:20:VAL:HG21	16:AP:32:PHE:HB2	1.87	0.55
17:AQ:46:HIS:HB2	17:AQ:66:LEU:HD12	1.88	0.55
20:AT:66:ILE:HG13	20:AT:70:LYS:HG2	1.89	0.55
20:AT:72:ALA:O	20:AT:73:ARG:C	2.50	0.55
21:AU:18:PHE:O	21:AU:21:SER:HB3	2.06	0.55
22:BA:243:U:O2'	22:BA:244:A:H5'	2.05	0.55
22:BA:412:A:C2'	22:BA:413:C:H5'	2.37	0.55
22:BA:1167:C:H2'	22:BA:1168:G:O5'	2.07	0.55
22:BA:1716:U:O2'	22:BA:1717:A:H5'	2.07	0.55
24:BC:36:ASN:O	24:BC:37:SER:HB3	2.07	0.55
27:BF:52:ALA:HB2	27:BF:149:ARG:HD3	1.89	0.55
28:BG:84:LYS:HZ1	28:BG:133:LYS:HE3	1.71	0.55
29:BH:6:LEU:O	29:BH:15:LEU:HA	2.06	0.55
32:BK:70:ARG:CD	32:BK:76:VAL:HG22	2.37	0.55
35:BN:95:THR:HG21	35:BN:113:ILE:HD11	1.88	0.55
37:BP:24:THR:CG2	37:BP:87:ARG:HB3	2.37	0.55
41:BT:29:THR:N	41:BT:86:THR:HA	2.22	0.55
53:CA:120:A:H2'	53:CA:121:U:H5''	1.83	0.55
53:CA:373:A:H5'	53:CA:373:A:C8	2.41	0.55
53:CA:410:G:OP1	4:CD:25:ARG:CD	2.54	0.55
53:CA:666:G:C6	53:CA:741:G:C6	2.95	0.55
53:CA:888:G:H4'	53:CA:1488:G:O2'	2.07	0.55
53:CA:987:G:C2'	53:CA:988:G:C8	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:994:A:C6	53:CA:1216:A:H5'	2.42	0.55
53:CA:1151:A:N6	53:CA:1152:A:N6	2.55	0.55
53:CA:1215:G:O2'	53:CA:1216:A:H5'	2.06	0.55
53:CA:1345:U:C6	53:CA:1377:A:H2	2.25	0.55
53:CA:1348:U:O2'	53:CA:1349:A:H5'	2.06	0.55
53:CA:1395:C:H5''	53:CA:1402:C:O2'	2.07	0.55
53:CA:1481:U:H2'	53:CA:1482:G:H8	1.72	0.55
2:CB:89:PHE:HB3	2:CB:149:GLY:O	2.07	0.55
3:CC:93:ILE:O	3:CC:93:ILE:HG13	2.06	0.55
6:CF:41:ASP:O	6:CF:42:TRP:C	2.49	0.55
10:CJ:76:ILE:HG22	10:CJ:77:VAL:N	2.22	0.55
17:CQ:61:ARG:C	17:CQ:72:TRP:CE3	2.85	0.55
19:CS:10:ILE:HG22	19:CS:14:LEU:HD21	1.89	0.55
20:CT:62:ALA:HA	20:CT:67:HIS:CE1	2.41	0.55
22:DA:61:C:HO2'	22:DA:62:U:H5'	1.70	0.55
22:DA:257:C:H2'	22:DA:258:G:O4'	2.06	0.55
22:DA:532:A:N6	22:DA:2020:A:H1'	2.22	0.55
22:DA:627:A:O2'	22:DA:628:G:O4'	2.25	0.55
22:DA:878:A:N3	22:DA:878:A:C3'	2.70	0.55
22:DA:1034:G:H2'	22:DA:1035:U:C6	2.42	0.55
22:DA:1056:G:H1'	22:DA:1103:A:C6	2.42	0.55
22:DA:1248:G:H2'	38:DQ:1:ALA:O	2.06	0.55
22:DA:1465:G:H2'	22:DA:1466:U:C6	2.42	0.55
22:DA:2030:A:N3	22:DA:2499:C:H5''	2.22	0.55
22:DA:2060:A:H2'	26:DE:63:LYS:HZ3	1.65	0.55
22:DA:2543:G:H2'	22:DA:2544:G:C8	2.41	0.55
22:DA:2734:A:H2'	22:DA:2735:G:C5'	2.37	0.55
25:DD:32:ASN:HB3	25:DD:52:THR:OG1	2.07	0.55
25:DD:196:ALA:O	25:DD:197:THR:C	2.50	0.55
33:DL:23:ILE:HD12	33:DL:23:ILE:N	2.21	0.55
33:DL:33:ARG:HD3	33:DL:40:SER:HA	1.89	0.55
34:DM:133:LYS:NZ	34:DM:133:LYS:HB3	2.22	0.55
35:DN:9:GLN:C	35:DN:10:LEU:O	2.48	0.55
36:DO:28:VAL:O	36:DO:28:VAL:HG13	2.07	0.55
36:DO:111:ARG:HA	36:DO:115:LEU:O	2.06	0.55
38:DQ:4:LYS:HE3	38:DQ:7:VAL:CG2	2.37	0.55
38:DQ:10:ARG:CZ	38:DQ:10:ARG:HB2	2.37	0.55
41:DT:48:GLN:HA	41:DT:48:GLN:NE2	2.19	0.55
43:DV:75:GLN:HB2	43:DV:90:ASP:O	2.06	0.55
1:AA:357:G:H1'	1:AA:368:U:O2	2.07	0.55
1:AA:466:A:O2'	1:AA:467:U:C5	2.59	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:487:A:H2'	1:AA:488:C:C6	2.42	0.55
1:AA:596:A:C6	1:AA:645:G:C2	2.95	0.55
1:AA:797:C:O2'	1:AA:798:U:H5'	2.07	0.55
1:AA:1367:C:C5'	10:AJ:62:ARG:NH1	2.70	0.55
2:AB:9:LEU:HD23	2:AB:9:LEU:C	2.32	0.55
2:AB:19:THR:HG23	2:AB:20:ARG:H	1.72	0.55
2:AB:113:LEU:HB2	2:AB:143:LEU:HD12	1.89	0.55
2:AB:138:ARG:HG3	2:AB:139:GLU:N	2.20	0.55
6:AF:90:MET:HE1	18:AR:22:TYR:OH	2.06	0.55
7:AG:20:GLU:O	7:AG:24:LYS:HG3	2.07	0.55
7:AG:68:VAL:HB	7:AG:99:ALA:HB1	1.88	0.55
10:AJ:18:ILE:HG23	10:AJ:19:ASP:N	2.21	0.55
15:AO:80:LEU:O	15:AO:80:LEU:HD12	2.07	0.55
17:AQ:74:LEU:C	17:AQ:74:LEU:HD13	2.32	0.55
19:AS:79:TYR:CG	19:AS:80:ARG:N	2.75	0.55
22:BA:877:A:C2	22:BA:899:A:C2	2.94	0.55
22:BA:1009:A:H8	22:BA:1009:A:O5'	1.89	0.55
22:BA:1858:A:OP2	22:BA:1858:A:C8	2.60	0.55
22:BA:1885:A:O2'	22:BA:1886:U:H5'	2.06	0.55
22:BA:1886:U:H2'	22:BA:1887:C:C6	2.42	0.55
22:BA:1997:C:OP2	25:BD:129:THR:OG1	2.24	0.55
22:BA:2024:G:C2'	22:BA:2025:C:H5'	2.37	0.55
22:BA:2210:U:C2	22:BA:2212:A:C8	2.95	0.55
22:BA:2886:A:C2	22:BA:2887:A:H1'	2.42	0.55
32:BK:108:ARG:HG3	32:BK:108:ARG:HH11	1.71	0.55
52:B4:9:LYS:HB3	52:B4:14:CYS:HB2	1.87	0.55
53:CA:566:G:C4'	53:CA:567:G:OP1	2.48	0.55
53:CA:687:A:C2	53:CA:704:A:C5	2.95	0.55
53:CA:974:A:O2'	53:CA:975:A:P	2.64	0.55
53:CA:1366:C:O2'	53:CA:1367:C:H6	1.88	0.55
6:CF:62:MET:O	6:CF:63:ASN:HB2	2.07	0.55
11:CK:115:ILE:O	11:CK:115:ILE:HG23	2.07	0.55
14:CN:63:CYS:HB3	14:CN:67:GLY:H	1.72	0.55
20:CT:81:GLN:O	20:CT:82:ILE:HG23	2.07	0.55
22:DA:9:G:H1	22:DA:2629:U:H2'	1.71	0.55
22:DA:568:U:H2'	22:DA:570:G:OP2	2.07	0.55
22:DA:586:A:H8	22:DA:586:A:O5'	1.89	0.55
22:DA:663:G:O6	22:DA:664:G:C6	2.59	0.55
22:DA:784:G:HO2'	22:DA:785:G:H8	1.54	0.55
22:DA:856:G:N2	22:DA:922:C:C2	2.75	0.55
22:DA:962:G:O2'	22:DA:963:U:H5'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:973:A:O5'	39:DR:81:LYS:HE3	2.07	0.55
22:DA:1421:G:H8	22:DA:1421:G:OP2	1.90	0.55
22:DA:1492:G:C4	22:DA:1496:A:N6	2.75	0.55
22:DA:1553:A:N7	22:DA:1555:G:C5	2.75	0.55
22:DA:1565:C:HO2'	22:DA:1566:A:H2'	1.66	0.55
22:DA:1914:C:O2'	22:DA:1915:U:H5''	2.07	0.55
22:DA:2054:A:C2	22:DA:2616:C:C2	2.95	0.55
22:DA:2095:A:H2'	22:DA:2096:C:C6	2.42	0.55
22:DA:2788:C:O2'	22:DA:2809:A:N3	2.33	0.55
26:DE:42:GLY:HA2	26:DE:92:HIS:HE1	1.71	0.55
58:DF:59:ILE:HG23	58:DF:137:PHE:HE1	1.72	0.55
58:DF:73:VAL:O	58:DF:73:VAL:HG12	2.07	0.55
29:DH:2:GLN:O	29:DH:3:VAL:O	2.25	0.55
29:DH:5:LEU:HD11	29:DH:13:GLY:HA3	1.87	0.55
30:DI:52:LEU:O	30:DI:54:ILE:HD12	2.07	0.55
31:DJ:4:PHE:HB3	38:DQ:63:ARG:HH22	1.72	0.55
31:DJ:125:TYR:HE2	31:DJ:132:HIS:CD2	2.25	0.55
41:DT:34:VAL:O	41:DT:35:ALA:HB3	2.06	0.55
44:DW:18:LYS:CD	44:DW:19:ARG:HG2	2.37	0.55
46:DY:57:LEU:HD13	46:DY:60:LYS:CE	2.33	0.55
49:D1:8:ILE:HG22	49:D1:9:LYS:N	2.21	0.55
51:D3:41:ARG:HG3	51:D3:41:ARG:NH2	2.10	0.55
1:AA:259:G:C4	1:AA:260:G:C8	2.95	0.55
1:AA:528:C:H5'	1:AA:529:G:OP2	2.07	0.55
1:AA:601:G:O2'	1:AA:602:A:H5'	2.05	0.55
1:AA:687:A:N7	1:AA:701:U:H5	2.05	0.55
1:AA:927:G:N2	1:AA:1391:U:H1'	2.22	0.55
1:AA:1136:C:H4'	1:AA:1137:C:OP1	2.06	0.55
1:AA:1387:G:H2'	1:AA:1388:C:H6	1.70	0.55
1:AA:1418:A:C2	1:AA:1483:A:C2	2.95	0.55
1:AA:1489:G:C2'	1:AA:1490:U:H5'	2.37	0.55
5:AE:96:GLN:HB2	5:AE:123:LEU:HD13	1.89	0.55
8:AH:58:LEU:HD13	8:AH:58:LEU:C	2.32	0.55
8:AH:110:MET:HE2	8:AH:114:ALA:CB	2.33	0.55
17:AQ:74:LEU:HD12	17:AQ:74:LEU:H	1.71	0.55
22:BA:80:G:C2	22:BA:107:G:C2	2.94	0.55
22:BA:523:C:O2'	22:BA:524:G:H5'	2.07	0.55
22:BA:936:A:N6	62:BA:3577:HOH:O	2.38	0.55
22:BA:1090:A:O2'	22:BA:1091:G:H5'	2.06	0.55
22:BA:2510:C:H2'	22:BA:2511:U:O5'	2.06	0.55
22:BA:2787:C:O2'	22:BA:2788:C:H5'	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:57:A:H2'	23:BB:58:A:H8	1.72	0.55
24:BC:90:ILE:HG23	24:BC:102:TYR:CD1	2.42	0.55
24:BC:252:LYS:HZ2	24:BC:252:LYS:CA	2.19	0.55
25:BD:16:THR:HG22	25:BD:20:VAL:O	2.06	0.55
26:BE:189:THR:HG1	26:BE:191:ASP:HB3	1.71	0.55
27:BF:34:THR:HG22	27:BF:89:THR:HA	1.89	0.55
28:BG:33:THR:CA	28:BG:34:ARG:HH11	2.20	0.55
29:BH:137:GLU:HG3	29:BH:138:VAL:N	2.22	0.55
30:BI:126:ARG:HA	30:BI:129:GLU:CB	2.36	0.55
33:BL:94:THR:CG2	33:BL:95:LEU:N	2.70	0.55
53:CA:102:G:H2'	53:CA:103:U:H6	1.71	0.55
53:CA:791:G:C2'	53:CA:792:A:H5'	2.36	0.55
53:CA:935:A:HO2'	53:CA:936:C:H6	1.43	0.55
53:CA:1230:C:H6	53:CA:1230:C:H5''	1.72	0.55
53:CA:1449:C:O2'	53:CA:1450:U:O4'	2.24	0.55
2:CB:93:HIS:CD2	2:CB:145:ASN:O	2.54	0.55
3:CC:26:LYS:HE3	3:CC:26:LYS:CA	2.23	0.55
6:CF:54:LEU:CD1	6:CF:56:LYS:O	2.55	0.55
10:CJ:10:LEU:O	10:CJ:18:ILE:HD11	2.07	0.55
14:CN:2:LYS:HD3	14:CN:5:MET:HG3	1.87	0.55
22:DA:540:C:O2'	22:DA:541:A:H5'	2.07	0.55
22:DA:565:C:C2'	22:DA:566:U:H5'	2.36	0.55
22:DA:1014:A:C2	22:DA:1149:G:C2	2.95	0.55
22:DA:1029:A:H5''	22:DA:1030:C:OP2	2.06	0.55
22:DA:1130:U:O2'	22:DA:1131:G:H8	1.89	0.55
22:DA:1612:C:O2'	22:DA:1613:G:O5'	2.25	0.55
22:DA:1792:G:H5''	24:DC:203:VAL:HG23	1.89	0.55
22:DA:2185:U:H2'	22:DA:2186:G:H8	1.72	0.55
22:DA:2192:U:H2'	22:DA:2192:U:O2	2.05	0.55
22:DA:2261:C:H41	44:DW:10:ARG:HB3	1.72	0.55
22:DA:2313:C:O2'	22:DA:2314:A:C5'	2.55	0.55
22:DA:2817:U:O2	22:DA:2836:U:H1'	2.07	0.55
24:DC:29:PHE:CE2	24:DC:31:PRO:HG2	2.42	0.55
25:DD:12:THR:OG1	37:DP:4:ILE:HG23	2.07	0.55
25:DD:141:ARG:HH11	25:DD:141:ARG:CB	2.15	0.55
58:DF:11:VAL:HG13	58:DF:171:ALA:HB2	1.87	0.55
29:DH:66:ASN:HD22	29:DH:137:GLU:HB3	1.72	0.55
29:DH:136:SER:O	29:DH:137:GLU:HG3	2.07	0.55
33:DL:127:VAL:CG1	33:DL:132:ARG:HB2	2.36	0.55
47:DZ:32:GLY:C	47:DZ:34:THR:H	2.14	0.55
48:D0:16:ARG:O	48:D0:17:SER:C	2.50	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:69:G:H2'	1:AA:69:G:N3	2.23	0.54
1:AA:87:C:HO2'	1:AA:88:U:C4'	2.20	0.54
1:AA:215:C:H2'	1:AA:216:U:C6	2.42	0.54
1:AA:224:U:H2'	1:AA:225:C:H6	1.72	0.54
1:AA:251:G:O4'	1:AA:252:U:H5''	2.06	0.54
1:AA:514:C:O2'	1:AA:515:G:H5'	2.08	0.54
1:AA:918:A:H2'	1:AA:919:A:C8	2.42	0.54
1:AA:954:G:H21	1:AA:1227:A:H2	1.54	0.54
1:AA:1052:U:C5'	1:AA:1053:G:OP2	2.55	0.54
1:AA:1258:G:O2'	1:AA:1259:C:C6	2.58	0.54
8:AH:28:SER:CB	8:AH:58:LEU:HB2	2.34	0.54
9:AI:113:LYS:HG2	9:AI:114:LYS:N	2.21	0.54
10:AJ:87:LEU:HD13	10:AJ:87:LEU:C	2.32	0.54
11:AK:76:TYR:N	11:AK:76:TYR:HD1	2.05	0.54
12:AL:84:GLY:O	12:AL:95:HIS:CD2	2.58	0.54
17:AQ:74:LEU:C	17:AQ:74:LEU:CD1	2.80	0.54
19:AS:79:TYR:CZ	19:AS:80:ARG:HB2	2.42	0.54
22:BA:719:C:O2'	22:BA:720:U:H5'	2.06	0.54
22:BA:745:G:C2'	22:BA:746:U:H5'	2.37	0.54
22:BA:997:G:O2'	22:BA:998:C:H5'	2.06	0.54
22:BA:1140:C:P	31:BJ:68:LYS:NZ	2.80	0.54
22:BA:1465:G:C6	22:BA:1466:U:N3	2.75	0.54
22:BA:2777:G:O5'	22:BA:2777:G:C8	2.59	0.54
23:BB:34:A:H2'	23:BB:35:C:OP2	2.05	0.54
24:BC:151:GLY:C	24:BC:152:GLN:HG3	2.32	0.54
27:BF:142:TYR:O	27:BF:145:VAL:HG22	2.07	0.54
28:BG:59:ASP:O	28:BG:60:GLY:C	2.49	0.54
29:BH:25:TYR:O	29:BH:29:PHE:HB3	2.06	0.54
32:BK:87:LEU:HD23	32:BK:94:PRO:HA	1.89	0.54
41:BT:30:ILE:HG23	41:BT:85:VAL:CB	2.30	0.54
41:BT:69:ARG:NE	41:BT:70:HIS:H	2.05	0.54
53:CA:261:U:OP2	20:CT:70:LYS:HE2	2.07	0.54
53:CA:501:C:H2'	53:CA:502:A:H8	1.71	0.54
53:CA:1160:G:O6	53:CA:1181:G:C6	2.60	0.54
4:CD:52:VAL:HG12	4:CD:53:GLN:N	2.21	0.54
5:CE:105:ILE:HG22	5:CE:105:ILE:O	2.06	0.54
12:CL:42:LYS:HD3	12:CL:43:LYS:HZ2	1.71	0.54
14:CN:76:PHE:CZ	14:CN:95:LEU:HD22	2.42	0.54
56:CP:8:ARG:CB	56:CP:28:ARG:NH1	2.68	0.54
21:CU:37:TYR:O	21:CU:38:GLU:HG2	2.07	0.54
22:DA:128:C:H2'	22:DA:129:C:C5	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:151:C:H2'	22:DA:152:A:C8	2.42	0.54
22:DA:190:A:H2'	22:DA:191:A:O4'	2.07	0.54
22:DA:197:A:N7	22:DA:2430:A:C8	2.75	0.54
22:DA:224:U:O4	22:DA:420:C:H5'	2.08	0.54
22:DA:322:A:C2	22:DA:340:A:C6	2.95	0.54
22:DA:571:U:C4	22:DA:2030:A:C6	2.95	0.54
22:DA:608:A:H2'	22:DA:609:A:C8	2.42	0.54
22:DA:675:A:OP1	26:DE:60:TRP:CZ2	2.60	0.54
22:DA:763:G:C4	22:DA:765:C:C6	2.94	0.54
22:DA:924:G:C2'	22:DA:925:A:H5'	2.38	0.54
22:DA:991:C:H6	22:DA:991:C:O5'	1.90	0.54
22:DA:995:C:O2'	38:DQ:60:TRP:CZ2	2.56	0.54
22:DA:1355:G:C6	22:DA:1377:G:N2	2.75	0.54
22:DA:1440:U:H2'	22:DA:1441:G:H8	1.72	0.54
22:DA:1512:C:H2'	22:DA:1513:U:O4'	2.07	0.54
22:DA:1738:G:O2'	22:DA:1739:A:C8	2.56	0.54
22:DA:1956:U:H2'	22:DA:1957:C:C6	2.41	0.54
22:DA:1998:A:O3'	22:DA:2724:U:H4'	2.05	0.54
22:DA:2191:A:H5''	22:DA:2192:U:OP2	2.07	0.54
22:DA:2285:C:H5	49:D1:5:ARG:NH2	2.04	0.54
22:DA:2691:C:H5'	22:DA:2691:C:C6	2.42	0.54
22:DA:2732:G:H5''	22:DA:2733:A:O4'	2.06	0.54
57:DB:11:C:H5'	44:DW:71:LYS:HD3	1.89	0.54
26:DE:6:LYS:HG2	26:DE:7:ASP:CG	2.31	0.54
58:DF:4:HIS:CE1	58:DF:96:TRP:CH2	2.95	0.54
33:DL:85:VAL:O	33:DL:86:GLU:HB2	2.07	0.54
38:DQ:44:TYR:HD2	38:DQ:44:TYR:H	1.55	0.54
40:DS:4:ILE:HG21	40:DS:106:VAL:HG22	1.87	0.54
46:DY:18:LEU:HD13	46:DY:22:LEU:HD13	1.88	0.54
1:AA:57:G:C5	1:AA:58:C:C4	2.95	0.54
1:AA:244:U:H4'	1:AA:245:U:H5'	1.89	0.54
1:AA:826:C:H5'	8:AH:12:ARG:NH2	2.22	0.54
1:AA:920:U:H2'	1:AA:921:U:C6	2.43	0.54
1:AA:1055:A:N6	1:AA:1206:G:C5	2.76	0.54
1:AA:1363:A:C5	1:AA:1365:G:C6	2.95	0.54
2:AB:60:ALA:HB3	2:AB:223:GLY:HA3	1.88	0.54
4:AD:61:ARG:HG2	4:AD:71:PHE:CD2	2.42	0.54
4:AD:114:ARG:O	4:AD:115:GLN:C	2.50	0.54
6:AF:16:GLU:CB	4:CD:191:SER:HB2	2.36	0.54
6:AF:81:ASN:HB3	6:AF:84:VAL:CG1	2.37	0.54
8:AH:30:LYS:HA	8:AH:30:LYS:HE3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:42:ASN:HD21	14:AN:46:LYS:NZ	2.05	0.54
15:AO:42:PHE:CE1	15:AO:55:LEU:HD22	2.43	0.54
22:BA:65:U:C2	22:BA:66:C:C5	2.95	0.54
22:BA:301:G:H1'	22:BA:302:C:C6	2.42	0.54
22:BA:786:C:C2'	22:BA:787:C:H5'	2.36	0.54
22:BA:977:G:O6	62:BA:3579:HOH:O	2.18	0.54
22:BA:1184:U:C6	22:BA:1184:U:H3'	2.43	0.54
22:BA:1248:G:OP1	38:BQ:1:ALA:N	2.34	0.54
22:BA:1506:U:H2'	22:BA:1507:C:C6	2.42	0.54
22:BA:1965:C:H2'	22:BA:1966:A:H8	1.72	0.54
22:BA:2150:C:H2'	22:BA:2151:U:C6	2.38	0.54
22:BA:2592:G:C6	22:BA:2593:U:C4	2.95	0.54
22:BA:2902:C:O2'	22:BA:2903:U:H5'	2.07	0.54
23:BB:34:A:O2'	23:BB:35:C:H5'	2.07	0.54
24:BC:20:ASN:HB3	24:BC:23:LEU:CD2	2.34	0.54
24:BC:106:PRO:O	24:BC:109:LEU:HD13	2.07	0.54
25:BD:159:LYS:NZ	25:BD:160:LYS:H	2.05	0.54
27:BF:131:VAL:HG22	27:BF:151:LEU:HG	1.89	0.54
32:BK:70:ARG:HD3	32:BK:76:VAL:CG2	2.38	0.54
32:BK:72:PRO:O	32:BK:74:GLY:N	2.38	0.54
35:BN:2:ARG:O	35:BN:3:HIS:C	2.50	0.54
36:BO:88:LYS:HE2	36:BO:116:GLN:NE2	2.22	0.54
38:BQ:85:ALA:O	38:BQ:87:VAL:C	2.50	0.54
41:BT:40:LYS:N	41:BT:43:ILE:CG2	2.67	0.54
44:BW:77:LYS:O	44:BW:78:PHE:CB	2.55	0.54
47:BZ:6:ILE:CD1	47:BZ:47:ILE:HD11	2.36	0.54
51:B3:9:ALA:CB	51:B3:61:LEU:HD21	2.37	0.54
53:CA:65:A:C5	53:CA:200:G:O2'	2.60	0.54
53:CA:72:A:N6	53:CA:99:C:C1'	2.69	0.54
53:CA:219:U:H2'	53:CA:220:G:C8	2.41	0.54
53:CA:243:A:H4'	53:CA:244:U:C5'	2.28	0.54
53:CA:657:U:O2'	53:CA:658:C:H5'	2.07	0.54
53:CA:960:U:C5	53:CA:1225:A:H1'	2.43	0.54
53:CA:1029:U:H4'	53:CA:1032:G:H1	1.71	0.54
53:CA:1303:C:H2'	53:CA:1303:C:O2	2.07	0.54
53:CA:1319:A:N6	53:CA:1323:G:C2	2.76	0.54
53:CA:1343:G:H4'	9:CI:123:ARG:O	2.07	0.54
2:CB:46:VAL:CG1	2:CB:47:PRO:CD	2.81	0.54
2:CB:119:GLN:CG	2:CB:124:THR:CG2	2.84	0.54
6:CF:26:THR:HA	6:CF:36:ILE:HD11	1.89	0.54
9:CI:40:ARG:H	9:CI:44:ARG:HD3	1.70	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
56:CP:7:ALA:HB1	56:CP:29:ASN:OD1	2.07	0.54
56:CP:12:LYS:O	56:CP:13:LYS:HB2	2.07	0.54
22:DA:347:A:H2'	22:DA:348:A:C8	2.42	0.54
22:DA:495:G:H4'	40:DS:4:ILE:O	2.07	0.54
22:DA:503:A:C4'	22:DA:504:A:O5'	2.53	0.54
22:DA:767:U:O2'	22:DA:768:G:H5'	2.06	0.54
22:DA:1139:G:C2'	22:DA:1140:C:H5'	2.37	0.54
22:DA:1210:G:C6	22:DA:1237:A:N7	2.75	0.54
22:DA:1654:A:N3	22:DA:1655:A:C8	2.76	0.54
22:DA:1757:A:N1	22:DA:1762:A:H2	2.04	0.54
22:DA:2185:U:H2'	22:DA:2186:G:C8	2.42	0.54
22:DA:2198:A:O2'	22:DA:2199:A:H5'	2.07	0.54
22:DA:2691:C:H6	22:DA:2691:C:H5'	1.72	0.54
22:DA:2812:G:C2	22:DA:2813:A:C4	2.95	0.54
57:DB:25:U:O2'	57:DB:26:C:H5'	2.07	0.54
57:DB:29:A:OP2	36:DO:32:PRO:HD2	2.07	0.54
24:DC:180:MET:CE	24:DC:268:ARG:HE	2.20	0.54
26:DE:59:PRO:CB	26:DE:67:ARG:NH2	2.65	0.54
29:DH:32:PRO:HA	45:DX:38:TRP:CD1	2.42	0.54
31:DJ:35:ARG:HA	31:DJ:40:HIS:HD2	1.73	0.54
32:DK:73:ASP:OD2	32:DK:75:SER:HB3	2.07	0.54
33:DL:110:VAL:CG1	33:DL:127:VAL:HG23	2.36	0.54
35:DN:39:PRO:O	35:DN:43:GLU:HG2	2.07	0.54
42:DU:54:PRO:HG2	42:DU:55:GLY:N	2.17	0.54
42:DU:92:VAL:CB	42:DU:101:THR:HG21	2.36	0.54
44:DW:18:LYS:CD	44:DW:19:ARG:N	2.62	0.54
46:DY:48:ARG:O	46:DY:51:ALA:HB3	2.07	0.54
52:D4:9:LYS:HD3	52:D4:9:LYS:C	2.32	0.54
1:AA:198:G:N1	1:AA:220:G:C4	2.75	0.54
1:AA:204:G:C3'	1:AA:205:A:C5'	2.77	0.54
1:AA:981:U:C2	1:AA:982:U:C5	2.95	0.54
1:AA:1094:G:O2'	1:AA:1095:U:P	2.64	0.54
1:AA:1124:G:H3'	1:AA:1145:A:N6	2.22	0.54
1:AA:1444:U:H2'	1:AA:1445:U:C6	2.43	0.54
4:AD:52:VAL:CG2	4:AD:53:GLN:N	2.70	0.54
6:AF:61:LEU:HD21	18:AR:23:LYS:HZ3	1.70	0.54
7:AG:68:VAL:HG21	7:AG:103:ILE:CD1	2.37	0.54
7:AG:78:ARG:HA	7:AG:82:SER:O	2.06	0.54
10:AJ:15:HIS:CG	10:AJ:16:ARG:N	2.76	0.54
10:AJ:17:LEU:HD23	10:AJ:17:LEU:C	2.33	0.54
11:AK:15:VAL:CG1	11:AK:78:ILE:HG23	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:2:THR:HG22	12:AL:4:ASN:H	1.71	0.54
12:AL:35:ARG:CB	12:AL:37:TYR:CE1	2.90	0.54
12:AL:49:ARG:NH1	12:AL:49:ARG:CG	2.53	0.54
13:AM:113:LYS:N	13:AM:114:PRO:CD	2.58	0.54
19:AS:64:GLU:CD	19:AS:64:GLU:H	2.15	0.54
22:BA:45:G:H5''	22:BA:46:G:H5'	1.88	0.54
22:BA:597:G:C2	22:BA:661:A:C2	2.95	0.54
22:BA:857:G:H2'	22:BA:858:G:O4'	2.07	0.54
22:BA:1252:G:N1	38:BQ:36:GLN:OE1	2.33	0.54
22:BA:1343:G:H2'	22:BA:1344:U:C6	2.42	0.54
22:BA:1455:G:O2'	22:BA:1456:G:H5'	2.08	0.54
22:BA:1730:C:H1'	22:BA:1731:G:C2	2.43	0.54
26:BE:7:ASP:CG	26:BE:8:ALA:H	2.16	0.54
30:BI:24:GLY:O	30:BI:27:LEU:HG	2.07	0.54
34:BM:70:ASP:OD1	34:BM:70:ASP:C	2.50	0.54
37:BP:24:THR:HG22	37:BP:87:ARG:N	2.21	0.54
39:BR:49:ILE:C	39:BR:51:VAL:O	2.50	0.54
42:BU:80:ASP:O	42:BU:81:ARG:HB2	2.07	0.54
49:B1:16:THR:CB	49:B1:41:VAL:CG2	2.79	0.54
53:CA:68:G:N2	53:CA:152:A:C1'	2.69	0.54
53:CA:250:A:H1'	53:CA:252:U:C4	2.42	0.54
53:CA:374:A:H2'	53:CA:375:U:C6	2.43	0.54
53:CA:439:U:H2'	53:CA:440:C:C6	2.43	0.54
53:CA:509:A:C2	53:CA:510:A:C2	2.95	0.54
53:CA:739:C:O2	53:CA:739:C:H2'	2.07	0.54
53:CA:1229:A:HO2'	53:CA:1230:C:H5''	1.71	0.54
53:CA:1249:C:H2'	53:CA:1250:A:C5'	2.26	0.54
53:CA:1422:G:H5''	32:DK:48:PRO:CB	2.17	0.54
6:CF:3:HIS:HB2	6:CF:92:THR:HG23	1.88	0.54
9:CI:9:GLY:CA	9:CI:16:ALA:HB3	2.38	0.54
10:CJ:44:THR:OG1	10:CJ:70:HIS:CE1	2.61	0.54
11:CK:107:THR:HG22	11:CK:108:ASN:CB	2.37	0.54
55:CM:76:ILE:HG22	55:CM:76:ILE:O	2.07	0.54
19:CS:39:ILE:HG12	19:CS:68:HIS:O	2.07	0.54
22:DA:10:A:O2'	22:DA:11:C:H5'	2.06	0.54
22:DA:272:A:N3	22:DA:273:G:N7	2.55	0.54
22:DA:1157:G:H2'	22:DA:1158:C:C6	2.43	0.54
22:DA:1168:G:C6	22:DA:1182:G:C6	2.95	0.54
22:DA:1497:U:C5	22:DA:1578:U:O5'	2.61	0.54
22:DA:1951:U:H2'	22:DA:1953:A:OP2	2.07	0.54
22:DA:2214:C:HO2'	22:DA:2215:C:H5'	1.64	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2416:C:H6	22:DA:2416:C:O5'	1.90	0.54
22:DA:2821:A:H2'	22:DA:2822:G:O4'	2.06	0.54
57:DB:100:G:H2'	57:DB:101:A:O4'	2.08	0.54
25:DD:9:VAL:CG1	25:DD:26:VAL:HG12	2.37	0.54
25:DD:47:ALA:HB2	25:DD:83:ARG:HD2	1.88	0.54
25:DD:88:GLU:O	25:DD:89:GLU:HG3	2.08	0.54
25:DD:106:LYS:HB3	25:DD:206:ALA:H	1.72	0.54
25:DD:113:SER:HB3	25:DD:168:GLU:H	1.72	0.54
25:DD:169:ARG:O	25:DD:170:VAL:CG2	2.55	0.54
58:DF:103:ILE:HG21	58:DF:173:ASP:O	2.07	0.54
28:DG:70:LEU:HD12	28:DG:70:LEU:C	2.32	0.54
29:DH:68:ARG:HG2	29:DH:71:LYS:HZ2	1.73	0.54
29:DH:92:GLY:O	29:DH:121:VAL:HG11	2.07	0.54
31:DJ:6:ALA:CB	31:DJ:45:THR:HB	2.36	0.54
31:DJ:18:VAL:HG12	31:DJ:54:ILE:HD11	1.90	0.54
31:DJ:103:ILE:HD12	31:DJ:103:ILE:O	2.07	0.54
33:DL:56:PRO:HB3	33:DL:58:TYR:CE2	2.43	0.54
33:DL:124:GLY:H	33:DL:143:GLU:CG	2.14	0.54
37:DP:57:ALA:HB1	37:DP:73:PHE:O	2.07	0.54
39:DR:10:LYS:N	39:DR:10:LYS:HD2	2.22	0.54
39:DR:38:VAL:HG21	39:DR:41:ILE:HD11	1.90	0.54
45:DX:6:VAL:HG22	45:DX:7:THR:CG2	2.31	0.54
50:D2:45:SER:C	50:D2:46:LYS:HD2	2.32	0.54
1:AA:91:U:O2'	1:AA:92:U:O4'	2.24	0.54
1:AA:174:A:C2'	1:AA:175:C:H5'	2.36	0.54
1:AA:577:G:O2'	1:AA:578:C:H5'	2.06	0.54
1:AA:1032:G:N2	1:AA:1033:G:C8	2.76	0.54
1:AA:1064:G:O2'	1:AA:1190:G:N2	2.40	0.54
2:AB:183:PHE:CE1	2:AB:197:PHE:CD2	2.96	0.54
6:AF:50:PRO:HD3	18:AR:73:HIS:HB3	1.88	0.54
7:AG:49:LEU:CD2	7:AG:124:SER:HB2	2.37	0.54
10:AJ:44:THR:HG23	10:AJ:70:HIS:CA	2.37	0.54
11:AK:124:LYS:HD2	21:AU:34:ARG:CZ	2.37	0.54
22:BA:451:U:C2	22:BA:453:A:N7	2.76	0.54
22:BA:869:G:C4	22:BA:870:U:C6	2.96	0.54
22:BA:1130:U:O2'	22:BA:1131:G:H8	1.90	0.54
22:BA:1394:U:P	62:BA:3404:HOH:O	2.65	0.54
22:BA:1859:U:H2'	22:BA:1860:G:H8	1.72	0.54
22:BA:2214:C:H5'	22:BA:2214:C:C6	2.39	0.54
22:BA:2476:A:H2'	22:BA:2477:U:H5'	1.90	0.54
24:BC:252:LYS:NZ	24:BC:252:LYS:CB	2.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:114:LYS:HE3	25:BD:114:LYS:C	2.31	0.54
27:BF:68:LYS:H	27:BF:68:LYS:CD	2.20	0.54
28:BG:85:LYS:HA	28:BG:130:ILE:O	2.07	0.54
29:BH:111:ALA:O	29:BH:112:LYS:HD3	2.07	0.54
30:BI:19:PRO:HG2	30:BI:23:VAL:CG2	2.37	0.54
31:BJ:44:TYR:O	31:BJ:45:THR:HG22	2.08	0.54
31:BJ:111:LYS:HZ1	31:BJ:114:LEU:HB3	1.72	0.54
39:BR:49:ILE:HG22	39:BR:53:PHE:C	2.33	0.54
41:BT:30:ILE:HG12	41:BT:32:LEU:HD22	1.89	0.54
49:B1:47:ILE:HD12	49:B1:47:ILE:N	2.22	0.54
53:CA:122:G:H2'	53:CA:123:U:H6	1.71	0.54
53:CA:134:G:H2'	53:CA:135:C:O4'	2.08	0.54
53:CA:502:A:H2'	53:CA:503:C:O4'	2.07	0.54
53:CA:1270:G:H2'	53:CA:1271:A:C8	2.42	0.54
3:CC:119:ILE:O	3:CC:123:LEU:HB2	2.08	0.54
6:CF:3:HIS:HB2	6:CF:92:THR:HA	1.88	0.54
8:CH:37:ASN:O	8:CH:41:GLU:HG2	2.07	0.54
12:CL:84:GLY:N	12:CL:94:TYR:HA	2.20	0.54
22:DA:492:A:H2	40:DS:7:HIS:CD2	2.26	0.54
22:DA:874:G:C2	22:DA:904:G:C2	2.96	0.54
22:DA:920:A:H2'	22:DA:921:C:C6	2.42	0.54
22:DA:1700:A:C2'	22:DA:1701:A:C5'	2.86	0.54
22:DA:1817:G:H5''	24:DC:86:ARG:HH22	1.71	0.54
22:DA:1936:A:H4'	22:DA:1937:A:OP2	2.08	0.54
22:DA:2143:C:H3'	22:DA:2144:G:C8	2.43	0.54
22:DA:2274:A:C5	22:DA:2276:G:C8	2.95	0.54
22:DA:2298:A:H2'	22:DA:2299:U:C6	2.42	0.54
22:DA:2376:A:H1'	36:DO:99:TYR:CE1	2.42	0.54
22:DA:2408:U:O2'	22:DA:2409:G:H8	1.90	0.54
22:DA:2690:U:H3'	22:DA:2691:C:C5'	2.37	0.54
22:DA:2744:G:N2	22:DA:2745:C:C2	2.76	0.54
22:DA:2786:U:O2'	22:DA:2787:C:H5'	2.07	0.54
57:DB:116:G:H4'	36:DO:54:VAL:HG22	1.90	0.54
26:DE:16:GLU:HG3	26:DE:16:GLU:O	2.08	0.54
31:DJ:20:ALA:HA	31:DJ:23:LYS:HG3	1.89	0.54
37:DP:28:LYS:HB3	37:DP:39:LEU:CD2	2.36	0.54
38:DQ:9:ALA:C	38:DQ:11:ALA:H	2.14	0.54
39:DR:24:LYS:HA	39:DR:94:THR:HG23	1.89	0.54
39:DR:80:ARG:HB3	39:DR:81:LYS:HD3	1.89	0.54
41:DT:21:SER:C	41:DT:25:GLU:HB3	2.32	0.54
43:DV:87:GLN:O	43:DV:88:HIS:HB2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:DY:25:GLN:HA	46:DY:28:LEU:HB3	1.89	0.54
1:AA:597:G:C2	1:AA:644:U:C2	2.96	0.54
1:AA:693:G:H2'	1:AA:694:A:H5'	1.88	0.54
1:AA:1322:C:O2'	1:AA:1323:G:C5'	2.56	0.54
1:AA:1405:G:O4'	1:AA:1519:A:H4'	2.08	0.54
1:AA:1468:A:C3'	1:AA:1469:C:C5'	2.86	0.54
2:AB:165:ALA:HB3	2:AB:190:SER:HB3	1.90	0.54
3:AC:39:ARG:HD3	3:AC:54:ILE:CG1	2.36	0.54
5:AE:132:PRO:O	5:AE:134:ASN:N	2.40	0.54
14:AN:4:SER:O	14:AN:8:ARG:HG3	2.07	0.54
22:BA:581:C:H2'	22:BA:582:A:C8	2.42	0.54
22:BA:812:C:H4'	38:BQ:12:ARG:HH22	1.73	0.54
22:BA:1313:U:O2	22:BA:1313:U:C2'	2.55	0.54
22:BA:1789:A:OP1	24:BC:220:ARG:HD3	2.07	0.54
22:BA:1906:G:C2'	22:BA:1907:G:O5'	2.55	0.54
22:BA:2318:G:C6	22:BA:2319:G:N1	2.75	0.54
22:BA:2348:U:O2'	22:BA:2349:G:H5'	2.07	0.54
22:BA:2626:C:H2'	22:BA:2627:G:O4'	2.07	0.54
22:BA:2678:C:H2'	22:BA:2679:A:O4'	2.07	0.54
22:BA:2756:U:H1'	22:BA:2757:A:H5''	1.89	0.54
24:BC:30:ALA:HB3	24:BC:31:PRO:HD3	1.90	0.54
26:BE:5:LEU:HD13	26:BE:10:SER:HB3	1.89	0.54
28:BG:82:PHE:CE2	28:BG:137:LYS:HB2	2.42	0.54
30:BI:27:LEU:C	30:BI:27:LEU:HD12	2.33	0.54
30:BI:60:VAL:HG22	30:BI:66:PHE:HB2	1.90	0.54
30:BI:64:ARG:HG3	30:BI:65:SER:N	2.22	0.54
33:BL:131:ALA:O	33:BL:135:ILE:HD12	2.07	0.54
34:BM:134:THR:HG23	34:BM:136:MET:O	2.08	0.54
37:BP:54:LEU:HA	37:BP:76:HIS:HD2	1.72	0.54
38:BQ:60:TRP:O	38:BQ:63:ARG:HG3	2.07	0.54
39:BR:46:GLU:HG2	39:BR:47:VAL:N	2.22	0.54
44:BW:28:GLU:O	44:BW:30:VAL:N	2.40	0.54
53:CA:14:U:H2'	53:CA:16:A:OP2	2.07	0.54
53:CA:129:A:O2'	53:CA:130:A:C8	2.60	0.54
53:CA:223:A:C5	53:CA:224:U:C5	2.95	0.54
53:CA:599:C:H4'	8:CH:121:GLY:C	2.33	0.54
53:CA:696:A:H8	53:CA:696:A:O5'	1.90	0.54
53:CA:703:G:H4'	53:CA:704:A:H5'	1.89	0.54
53:CA:1049:U:O2	53:CA:1049:U:H2'	2.08	0.54
53:CA:1062:U:H2'	53:CA:1063:C:C5	2.43	0.54
53:CA:1374:A:H2'	53:CA:1375:A:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:176:ASN:C	2:CB:178:LEU:H	2.16	0.54
3:CC:63:ILE:HG12	3:CC:65:VAL:CG2	2.35	0.54
3:CC:113:LYS:HE3	3:CC:184:ASN:HD21	1.71	0.54
54:CG:45:ALA:CB	54:CG:120:ALA:HB2	2.30	0.54
9:CI:34:LEU:HG	9:CI:35:GLU:HG3	1.89	0.54
9:CI:49:GLN:HA	9:CI:52:GLU:HG2	1.87	0.54
10:CJ:10:LEU:CD2	10:CJ:98:VAL:HG22	2.37	0.54
10:CJ:48:ARG:HB2	10:CJ:48:ARG:NH1	2.22	0.54
55:CM:75:SER:HB2	55:CM:79:LEU:CD1	2.38	0.54
14:CN:8:ARG:HD2	14:CN:12:ARG:CZ	2.38	0.54
17:CQ:46:HIS:HB2	17:CQ:70:LYS:HZ1	1.72	0.54
22:DA:35:G:O4'	22:DA:454:A:HI'	2.08	0.54
22:DA:77:G:H4'	46:DY:56:LEU:HD21	1.89	0.54
22:DA:320:A:H5''	22:DA:321:U:OP1	2.08	0.54
22:DA:565:C:H2'	22:DA:566:U:C5'	2.37	0.54
22:DA:1116:G:H2'	22:DA:1117:C:H6	1.72	0.54
22:DA:1331:G:C4	22:DA:1333:G:C8	2.95	0.54
22:DA:1810:A:H3'	22:DA:1811:G:H8	1.72	0.54
22:DA:1935:G:N1	22:DA:1962:C:H2'	2.20	0.54
22:DA:1982:U:O2'	22:DA:1983:G:H5'	2.07	0.54
24:DC:52:HIS:HB3	24:DC:216:ARG:O	2.08	0.54
24:DC:74:PRO:HA	24:DC:116:GLN:HG3	1.88	0.54
24:DC:220:ARG:O	24:DC:223:ALA:HB3	2.06	0.54
25:DD:106:LYS:O	25:DD:107:VAL:HB	2.07	0.54
25:DD:137:SER:C	25:DD:138:LEU:CD2	2.75	0.54
25:DD:187:LEU:HD12	25:DD:188:LEU:N	2.21	0.54
58:DF:5:ASP:C	58:DF:7:TYR:N	2.65	0.54
28:DG:10:VAL:HB	28:DG:14:VAL:HG21	1.90	0.54
28:DG:71:LEU:HD13	28:DG:71:LEU:O	2.08	0.54
30:DI:49:GLU:OE2	30:DI:54:ILE:HG13	2.07	0.54
32:DK:10:VAL:HG13	32:DK:12:ASP:OD1	2.06	0.54
35:DN:2:ARG:HD2	35:DN:5:LYS:HB3	1.89	0.54
35:DN:45:ARG:C	35:DN:47:VAL:H	2.14	0.54
38:DQ:91:ARG:NH2	38:DQ:93:ILE:HD13	2.23	0.54
41:DT:58:VAL:HG23	41:DT:84:TYR:O	2.06	0.54
45:DX:65:THR:O	45:DX:68:ALA:HB3	2.08	0.54
1:AA:35:G:H2'	1:AA:36:C:H6	1.72	0.54
1:AA:212:G:H2'	1:AA:213:G:H8	1.72	0.54
1:AA:268:U:O2'	1:AA:269:C:O4'	2.26	0.54
1:AA:548:G:H2'	1:AA:549:C:H6	1.69	0.54
1:AA:1370:G:H5''	9:AI:110:VAL:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:113:LEU:O	2:AB:117:GLU:HG3	2.07	0.54
3:AC:116:ALA:HB2	3:AC:199:VAL:CG1	2.36	0.54
4:AD:168:THR:HG22	4:AD:183:ARG:HH21	1.73	0.54
6:AF:42:TRP:N	6:AF:42:TRP:CD1	2.73	0.54
11:AK:124:LYS:HE2	11:AK:125:LYS:N	2.23	0.54
14:AN:44:VAL:HG23	14:AN:45:LEU:N	2.18	0.54
16:AP:11:ALA:O	16:AP:12:LYS:C	2.50	0.54
22:BA:155:A:O2'	22:BA:156:A:H5'	2.08	0.54
22:BA:348:A:H2'	22:BA:349:U:O4'	2.08	0.54
22:BA:528:A:C5'	31:BJ:116:ARG:HH22	2.11	0.54
22:BA:572:A:H8	22:BA:572:A:H5'	1.72	0.54
22:BA:918:A:H4'	23:BB:97:C:O2	2.08	0.54
22:BA:933:A:N3	22:BA:933:A:C2'	2.68	0.54
22:BA:1402:U:C2'	22:BA:1403:A:O5'	2.56	0.54
22:BA:1857:G:N2	22:BA:1884:G:O2'	2.41	0.54
22:BA:2333:A:H4'	22:BA:2334:U:O5'	2.08	0.54
22:BA:2499:C:C3'	22:BA:2500:U:H5''	2.37	0.54
22:BA:2522:U:C2'	22:BA:2523:G:H5'	2.37	0.54
22:BA:2783:U:H2'	22:BA:2784:U:H6	1.73	0.54
26:BE:175:ILE:HG21	26:BE:199:MET:HE1	1.88	0.54
29:BH:29:PHE:HD2	29:BH:30:LEU:HD23	1.71	0.54
32:BK:8:LEU:N	32:BK:8:LEU:CD2	2.68	0.54
32:BK:47:ILE:HG23	32:BK:48:PRO:N	2.23	0.54
33:BL:23:ILE:HG12	39:BR:82:HIS:ND1	2.23	0.54
34:BM:42:THR:O	34:BM:44:ARG:N	2.40	0.54
37:BP:50:ARG:CG	37:BP:57:ALA:C	2.81	0.54
38:BQ:4:LYS:CG	38:BQ:5:ARG:H	1.97	0.54
38:BQ:91:ARG:HB3	38:BQ:93:ILE:CG2	2.34	0.54
39:BR:18:GLN:O	39:BR:98:ILE:HB	2.08	0.54
39:BR:19:THR:HG22	39:BR:20:VAL:N	2.22	0.54
40:BS:3:THR:HB	40:BS:62:ASP:OD2	2.08	0.54
45:BX:42:GLU:O	45:BX:43:LYS:C	2.49	0.54
53:CA:174:A:O2'	53:CA:175:C:C5'	2.52	0.54
53:CA:204:G:H2'	53:CA:205:A:O4'	2.08	0.54
53:CA:501:C:H1'	53:CA:549:C:H1'	1.89	0.54
53:CA:508:U:C4'	53:CA:509:A:OP1	2.54	0.54
53:CA:542:G:C4	53:CA:543:U:C5	2.95	0.54
53:CA:642:A:C2	53:CA:643:C:C2	2.95	0.54
53:CA:704:A:O2'	53:CA:705:G:C5'	2.56	0.54
53:CA:1114:C:O2'	14:CN:99:SER:HB2	2.07	0.54
53:CA:1234:C:H4'	53:CA:1364:U:O2'	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1416:G:H2'	53:CA:1417:G:H5'	1.88	0.54
2:CB:185:ILE:CG2	2:CB:199:ILE:HG13	2.38	0.54
54:CG:4:ARG:HG3	54:CG:5:VAL:N	2.22	0.54
54:CG:11:ILE:HD13	54:CG:24:LYS:HB2	1.88	0.54
10:CJ:41:PRO:O	10:CJ:42:LEU:HB2	2.08	0.54
11:CK:19:VAL:CG1	11:CK:34:THR:HG23	2.37	0.54
55:CM:18:LEU:O	55:CM:24:VAL:HG23	2.08	0.54
22:DA:33:C:N4	22:DA:446:G:O2'	2.40	0.54
22:DA:449:A:H4'	38:DQ:2:ARG:HH22	1.72	0.54
22:DA:673:C:O2'	22:DA:674:G:C5'	2.52	0.54
22:DA:752:A:O2'	22:DA:753:A:OP2	2.16	0.54
22:DA:765:C:C2	22:DA:766:U:C6	2.96	0.54
22:DA:1430:G:O2'	22:DA:1431:A:O4'	2.19	0.54
22:DA:1713:A:H1'	22:DA:1716:U:H5'	1.90	0.54
22:DA:2282:G:H1'	22:DA:2390:U:H5	1.73	0.54
22:DA:2298:A:H2'	22:DA:2299:U:C5	2.43	0.54
22:DA:2494:G:O2'	34:DM:79:ALA:HA	2.07	0.54
22:DA:2592:G:C5	22:DA:2593:U:C5	2.95	0.54
22:DA:2718:G:O3'	37:DP:95:LYS:HG3	2.07	0.54
25:DD:5:VAL:H	25:DD:32:ASN:ND2	2.06	0.54
25:DD:113:SER:HB2	25:DD:168:GLU:OE1	2.07	0.54
25:DD:118:PHE:CE1	25:DD:119:ALA:O	2.61	0.54
25:DD:159:LYS:HE2	25:DD:160:LYS:H	1.73	0.54
25:DD:179:ARG:NH1	37:DP:7:LEU:HD11	2.23	0.54
58:DF:103:ILE:H	58:DF:107:VAL:CG1	2.20	0.54
28:DG:163:TYR:N	28:DG:163:TYR:HD2	2.04	0.54
32:DK:6:THR:O	32:DK:8:LEU:CD1	2.56	0.54
32:DK:25:LEU:HD23	32:DK:25:LEU:H	1.73	0.54
34:DM:73:ILE:CG1	34:DM:93:VAL:CG1	2.86	0.54
35:DN:90:ARG:NH2	35:DN:116:VAL:CG1	2.67	0.54
40:DS:36:LEU:HA	40:DS:39:THR:OG1	2.07	0.54
40:DS:103:ILE:HD12	40:DS:103:ILE:N	2.22	0.54
42:DU:20:LYS:HD3	42:DU:21:ARG:O	2.08	0.54
1:AA:531:U:C4'	1:AA:532:A:O5'	2.53	0.54
1:AA:596:A:O2'	1:AA:597:G:H5'	2.08	0.54
1:AA:749:A:H2	15:AO:21:THR:HG21	1.72	0.54
1:AA:1032:G:C2'	1:AA:1033:G:H5'	2.38	0.54
1:AA:1261:A:N1	1:AA:1274:A:C2	2.76	0.54
1:AA:1324:A:O2'	1:AA:1325:C:O5'	2.26	0.54
2:AB:89:PHE:CE2	2:AB:153:MET:HB2	2.42	0.54
2:AB:103:TRP:HE1	2:AB:150:ILE:HD11	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:89:THR:CG2	5:AE:90:GLY:N	2.62	0.54
9:AI:98:ARG:HG2	9:AI:103:VAL:CG2	2.28	0.54
11:AK:15:VAL:HG13	11:AK:78:ILE:HG23	1.90	0.54
13:AM:113:LYS:H	13:AM:114:PRO:HD3	1.71	0.54
19:AS:57:VAL:HG21	19:AS:74:ALA:HA	1.89	0.54
22:BA:1250:G:N7	33:BL:18:ARG:NH1	2.50	0.54
22:BA:1606:C:HO2'	22:BA:1607:C:P	2.31	0.54
22:BA:2485:G:C5'	34:BM:45:GLN:HE21	2.21	0.54
22:BA:2680:U:O2'	25:BD:11:MET:HE3	2.07	0.54
25:BD:34:VAL:CG2	25:BD:91:THR:HA	2.38	0.54
31:BJ:25:LEU:HB2	31:BJ:62:VAL:HG21	1.90	0.54
36:BO:104:GLN:C	36:BO:105:ALA:O	2.43	0.54
37:BP:5:LYS:C	37:BP:7:LEU:N	2.64	0.54
37:BP:83:ILE:O	37:BP:83:ILE:HG23	2.08	0.54
44:BW:37:VAL:C	44:BW:38:ARG:CG	2.76	0.54
45:BX:14:GLY:O	45:BX:26:ARG:HG3	2.08	0.54
53:CA:115:G:H1'	53:CA:116:A:N7	2.23	0.54
53:CA:120:A:O2'	53:CA:121:U:C5'	2.55	0.54
53:CA:258:G:H5'	20:CT:81:GLN:NE2	2.22	0.54
53:CA:327:A:N1	53:CA:329:A:C2	2.76	0.54
53:CA:764:C:N4	53:CA:812:G:N1	2.55	0.54
3:CC:120:THR:O	3:CC:120:THR:CG2	2.54	0.54
54:CG:12:LEU:HD13	54:CG:12:LEU:O	2.08	0.54
11:CK:111:ASP:N	21:CU:3:ILE:N	2.53	0.54
22:DA:15:G:O2'	22:DA:16:C:H5'	2.08	0.54
22:DA:100:U:OP1	22:DA:100:U:H3'	2.08	0.54
22:DA:183:C:O5'	22:DA:183:C:H6	1.90	0.54
22:DA:206:U:O2'	22:DA:207:A:C5'	2.55	0.54
22:DA:532:A:H4'	22:DA:533:G:C8	2.43	0.54
22:DA:563:A:N3	38:DQ:36:GLN:NE2	2.55	0.54
22:DA:608:A:C6	22:DA:621:A:C8	2.96	0.54
22:DA:634:C:H2'	22:DA:635:C:H6	1.67	0.54
22:DA:663:G:OP1	33:DL:17:LYS:HG2	2.07	0.54
22:DA:668:A:C5	22:DA:670:A:C8	2.96	0.54
22:DA:672:C:H5'	22:DA:672:C:C6	2.41	0.54
22:DA:1255:U:HO2'	22:DA:1256:G:P	2.31	0.54
22:DA:1342:A:C6	22:DA:1397:U:C5	2.96	0.54
22:DA:1431:A:H2'	22:DA:1432:G:O4'	2.07	0.54
22:DA:1494:A:OP2	22:DA:1494:A:H3'	2.06	0.54
22:DA:1820:U:H3	24:DC:197:ALA:HA	1.71	0.54
22:DA:1916:A:H2'	22:DA:1917:U:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1982:U:H6	22:DA:1982:U:O5'	1.90	0.54
22:DA:2235:G:H2'	22:DA:2236:U:C6	2.41	0.54
22:DA:2236:U:H2'	22:DA:2237:G:O4'	2.08	0.54
22:DA:2269:G:O2'	44:DW:18:LYS:HG2	2.07	0.54
22:DA:2290:G:H4'	22:DA:2381:A:O2'	2.08	0.54
22:DA:2677:G:H2'	22:DA:2678:C:C6	2.43	0.54
22:DA:2729:G:O2'	22:DA:2730:C:O4'	2.21	0.54
31:DJ:51:GLY:C	31:DJ:121:LYS:HE3	2.32	0.54
34:DM:33:LEU:HD12	34:DM:117:PHE:CG	2.42	0.54
34:DM:62:LYS:HG2	34:DM:64:TRP:CZ2	2.43	0.54
38:DQ:111:LYS:HE3	39:DR:48:LYS:HD3	1.89	0.54
40:DS:64:ALA:O	40:DS:65:ASP:C	2.50	0.54
1:AA:101:A:H2'	1:AA:102:G:H5'	1.89	0.54
1:AA:198:G:C6	1:AA:220:G:C2	2.96	0.54
1:AA:1065:U:C5'	1:AA:1190:G:N2	2.58	0.54
1:AA:1128:C:H4'	1:AA:1148:U:O2	2.08	0.54
1:AA:1411:C:H2'	1:AA:1412:C:C5'	2.34	0.54
4:AD:18:LEU:C	4:AD:19:PHE:HD1	2.15	0.54
7:AG:108:ARG:HH21	7:AG:118:ARG:NH2	2.05	0.54
8:AH:85:TYR:CE2	8:AH:123:GLU:HB2	2.43	0.54
9:AI:80:HIS:CE1	9:AI:84:ARG:HD2	2.43	0.54
10:AJ:56:HIS:CD2	10:AJ:57:VAL:HG12	2.37	0.54
14:AN:92:ILE:HG22	14:AN:95:LEU:CB	2.38	0.54
21:AU:10:PRO:O	21:AU:11:PHE:CB	2.52	0.54
22:BA:310:A:O2'	22:BA:311:A:O5'	2.25	0.54
22:BA:719:C:C2'	22:BA:720:U:H5'	2.38	0.54
22:BA:2013:A:OP1	40:BS:97:LEU:N	2.32	0.54
22:BA:2152:G:O2'	22:BA:2153:C:H5'	2.08	0.54
22:BA:2419:U:H5	62:BA:3660:HOH:O	1.90	0.54
22:BA:2670:A:H2'	22:BA:2671:G:O5'	2.08	0.54
29:BH:3:VAL:HA	29:BH:37:VAL:O	2.08	0.54
29:BH:53:GLU:HG2	29:BH:53:GLU:O	2.06	0.54
32:BK:85:VAL:HG21	32:BK:115:ILE:HD11	1.90	0.54
35:BN:36:THR:HG23	35:BN:37:THR:O	2.07	0.54
38:BQ:63:ARG:NH2	38:BQ:96:ASP:N	2.56	0.54
40:BS:73:LYS:HE3	40:BS:73:LYS:C	2.33	0.54
42:BU:27:VAL:C	42:BU:28:LEU:HG	2.33	0.54
42:BU:78:LYS:CG	42:BU:79:ALA:H	2.20	0.54
46:BY:23:ARG:O	46:BY:24:GLU:C	2.50	0.54
46:BY:45:GLN:O	46:BY:46:VAL:CB	2.55	0.54
53:CA:1108:G:OP1	3:CC:175:HIS:ND1	2.34	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1124:G:O2'	53:CA:1127:G:O6	2.24	0.54
53:CA:1140:C:O2'	53:CA:1141:C:C6	2.59	0.54
53:CA:1160:G:O6	53:CA:1181:G:O6	2.26	0.54
53:CA:1279:G:H5'	10:CJ:9:ARG:HH12	1.73	0.54
2:CB:103:TRP:HZ2	2:CB:155:GLY:HA2	1.72	0.54
2:CB:119:GLN:HG2	2:CB:124:THR:HG23	1.88	0.54
54:CG:37:THR:HA	54:CG:40:SER:HB2	1.90	0.54
8:CH:102:VAL:CG2	8:CH:125:ILE:HB	2.38	0.54
10:CJ:65:TYR:HD2	14:CN:96:LYS:O	1.91	0.54
11:CK:83:VAL:CG2	11:CK:109:ILE:HG12	2.38	0.54
11:CK:126:ARG:N	21:CU:33:ARG:HE	2.06	0.54
12:CL:113:ARG:HB3	12:CL:118:VAL:HB	1.89	0.54
55:CM:92:ARG:HD2	19:CS:79:TYR:OH	2.07	0.54
19:CS:54:ARG:HG2	19:CS:55:GLN:N	2.22	0.54
22:DA:265:A:C6	22:DA:428:A:O4'	2.61	0.54
22:DA:311:A:C2	22:DA:328:U:O4	2.61	0.54
22:DA:332:A:C4	22:DA:335:C:N4	2.76	0.54
22:DA:674:G:O2'	26:DE:69:ARG:CG	2.49	0.54
22:DA:746:U:H5'	22:DA:748:G:O4'	2.08	0.54
22:DA:749:A:C6	22:DA:1618:A:C2	2.96	0.54
22:DA:976:G:C5'	22:DA:1156:A:N6	2.70	0.54
22:DA:995:C:O2'	38:DQ:93:ILE:HD12	2.08	0.54
22:DA:1078:U:C4'	22:DA:1079:C:O5'	2.55	0.54
22:DA:1335:C:N4	62:DA:3409:HOH:O	2.41	0.54
22:DA:1388:G:H2'	22:DA:1389:G:C8	2.39	0.54
22:DA:2184:A:H2'	22:DA:2185:U:O4'	2.08	0.54
22:DA:2455:G:N1	22:DA:2498:C:N4	2.55	0.54
22:DA:2788:C:H2'	22:DA:2789:C:H6	1.69	0.54
22:DA:2886:A:H62	48:D0:39:ARG:HD3	1.71	0.54
24:DC:99:GLU:HG2	24:DC:100:ARG:N	2.23	0.54
24:DC:251:THR:HG22	24:DC:252:LYS:N	2.21	0.54
25:DD:53:GLY:O	25:DD:76:GLY:HA2	2.07	0.54
26:DE:105:LEU:HD13	26:DE:105:LEU:O	2.07	0.54
58:DF:1:ALA:HA	58:DF:97:GLU:HB3	1.90	0.54
58:DF:13:LYS:HD2	58:DF:13:LYS:N	2.23	0.54
28:DG:117:PRO:HG2	28:DG:143:VAL:CG1	2.38	0.54
29:DH:15:LEU:N	29:DH:15:LEU:HD22	2.23	0.54
31:DJ:95:ARG:NH1	31:DJ:99:ARG:HH21	2.06	0.54
32:DK:17:ARG:HG2	32:DK:18:ARG:N	2.23	0.54
33:DL:3:LEU:O	33:DL:4:ASN:C	2.50	0.54
34:DM:73:ILE:HG13	34:DM:93:VAL:CG1	2.38	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:DN:2:ARG:CD	35:DN:5:LYS:HB3	2.37	0.54
38:DQ:54:ARG:HB2	38:DQ:54:ARG:HH11	1.71	0.54
38:DQ:93:ILE:O	38:DQ:96:ASP:HB3	2.06	0.54
39:DR:49:ILE:HG22	39:DR:54:VAL:H	1.71	0.54
40:DS:27:LYS:O	40:DS:28:LYS:O	2.26	0.54
43:DV:61:LEU:O	43:DV:72:VAL:HG22	2.07	0.54
1:AA:66:A:N6	1:AA:104:G:C2	2.75	0.54
1:AA:330:C:H6	1:AA:330:C:C5'	2.20	0.54
1:AA:895:G:H2'	1:AA:896:C:C6	2.42	0.54
1:AA:914:A:H2'	1:AA:915:A:C8	2.40	0.54
1:AA:1066:C:H5''	1:AA:1066:C:H6	1.72	0.54
1:AA:1088:G:H21	1:AA:1167:A:H62	1.55	0.54
1:AA:1157:A:C2	1:AA:1181:G:C4	2.96	0.54
1:AA:1323:G:H4'	1:AA:1362:A:C2	2.42	0.54
2:AB:105:THR:HG22	2:AB:105:THR:O	2.08	0.54
2:AB:108:GLN:CG	2:AB:109:SER:N	2.69	0.54
8:AH:1:SER:C	8:AH:3:GLN:H	2.15	0.54
10:AJ:53:ILE:HD11	14:AN:84:ARG:NH1	2.23	0.54
11:AK:13:LYS:O	11:AK:14:GLN:CB	2.56	0.54
12:AL:72:ASN:CG	12:AL:73:LEU:H	2.15	0.54
22:BA:96:C:H4'	46:BY:41:HIS:CE1	2.43	0.54
22:BA:108:G:C2'	22:BA:109:C:H5'	2.38	0.54
22:BA:295:G:C2	22:BA:296:U:C6	2.96	0.54
22:BA:859:G:H8	22:BA:859:G:OP2	1.89	0.54
22:BA:1064:C:OP1	30:BI:87:SER:O	2.26	0.54
22:BA:1141:U:H5	31:BJ:65:THR:HG23	1.73	0.54
22:BA:1739:A:H2'	22:BA:1740:G:C8	2.43	0.54
22:BA:2080:A:H5'	45:BX:18:SER:HB2	1.90	0.54
22:BA:2286:G:O6	49:B1:22:THR:CG2	2.56	0.54
22:BA:2454:G:H2'	22:BA:2455:G:H5'	1.90	0.54
24:BC:171:VAL:HG23	24:BC:185:ALA:HA	1.87	0.54
24:BC:230:PRO:HG2	24:BC:245:THR:O	2.08	0.54
25:BD:16:THR:O	25:BD:19:GLY:N	2.40	0.54
26:BE:119:ILE:HG12	26:BE:119:ILE:O	2.08	0.54
26:BE:131:THR:HG22	26:BE:161:ALA:H	1.72	0.54
27:BF:175:PRO:O	27:BF:176:PHE:HB2	2.07	0.54
28:BG:73:SER:C	28:BG:76:ILE:HG22	2.33	0.54
29:BH:16:GLY:C	29:BH:51:ARG:HH21	2.16	0.54
31:BJ:97:PRO:O	31:BJ:99:ARG:N	2.41	0.54
31:BJ:117:ALA:HA	31:BJ:120:ARG:HH21	1.72	0.54
35:BN:96:ARG:HD2	35:BN:114:GLU:OE1	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:9:GLN:C	37:BP:11:GLN:H	2.14	0.54
37:BP:33:GLU:CB	37:BP:38:ARG:HH11	2.21	0.54
40:BS:17:VAL:CG1	40:BS:76:VAL:HG11	2.35	0.54
45:BX:40:GLU:C	45:BX:42:GLU:H	2.16	0.54
47:BZ:39:ASP:CG	47:BZ:44:ARG:HH11	2.16	0.54
52:B4:10:LEU:CD1	52:B4:33:HIS:HB3	2.37	0.54
53:CA:125:U:O2'	53:CA:126:G:H5'	2.07	0.54
53:CA:764:C:N4	53:CA:812:G:C6	2.76	0.54
53:CA:814:A:C5'	53:CA:1511:G:H4'	2.38	0.54
53:CA:927:G:N1	53:CA:1391:U:C2	2.76	0.54
2:CB:26:MET:O	2:CB:30:ILE:HG13	2.08	0.54
3:CC:177:LEU:O	3:CC:178:ARG:HB3	2.07	0.54
5:CE:33:THR:CG2	5:CE:33:THR:O	2.56	0.54
6:CF:3:HIS:CG	6:CF:92:THR:HG23	2.43	0.54
6:CF:80:PHE:CE2	24:DC:123:ILE:HG21	2.43	0.54
10:CJ:6:ILE:HD12	10:CJ:6:ILE:N	2.23	0.54
12:CL:58:ASN:CG	12:CL:60:PHE:CD1	2.85	0.54
55:CM:5:GLY:C	55:CM:6:ILE:HG13	2.33	0.54
14:CN:76:PHE:HE2	14:CN:92:ILE:HD13	1.72	0.54
56:CP:48:GLU:CG	56:CP:51:ARG:HE	2.21	0.54
17:CQ:20:ILE:HD11	17:CQ:22:VAL:CG2	2.37	0.54
22:DA:41:C:H2'	22:DA:42:A:C8	2.43	0.54
22:DA:119:A:H4'	22:DA:120:U:OP1	2.07	0.54
22:DA:226:A:H2'	22:DA:227:A:C8	2.43	0.54
22:DA:311:A:O2'	22:DA:332:A:H5'	2.07	0.54
22:DA:739:A:O2'	22:DA:740:C:C6	2.61	0.54
22:DA:1060:U:H5'	22:DA:1061:U:H2'	1.89	0.54
22:DA:1112:G:O2'	22:DA:1113:U:C6	2.61	0.54
22:DA:1120:G:O2'	22:DA:1121:C:H5'	2.07	0.54
22:DA:1206:G:O2'	22:DA:1207:C:C5'	2.55	0.54
22:DA:1386:C:O2'	22:DA:1387:A:H8	1.90	0.54
22:DA:1446:C:N4	22:DA:1447:C:N4	2.55	0.54
22:DA:1912:A:N7	22:DA:1918:A:C2	2.76	0.54
22:DA:2100:G:C6	22:DA:2101:A:C6	2.96	0.54
22:DA:2238:G:C5'	22:DA:2239:G:OP1	2.55	0.54
22:DA:2578:G:OP2	22:DA:2578:G:H4'	2.07	0.54
22:DA:2666:C:H2'	22:DA:2667:C:O5'	2.08	0.54
22:DA:2769:U:H2'	22:DA:2770:G:H5'	1.90	0.54
25:DD:179:ARG:HD2	25:DD:188:LEU:CD1	2.38	0.54
26:DE:147:LEU:CB	26:DE:186:VAL:HG23	2.38	0.54
28:DG:122:ALA:HB2	28:DG:132:LEU:HA	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:94:ILE:HG13	29:DH:98:ASP:CB	2.37	0.54
33:DL:108:ALA:HB3	33:DL:125:LEU:CD2	2.37	0.54
43:DV:26:PHE:CD2	43:DV:42:LEU:HB2	2.43	0.54
44:DW:37:VAL:HG21	44:DW:38:ARG:NH1	2.22	0.54
1:AA:585:G:C6	1:AA:586:C:C4	2.96	0.54
1:AA:813:U:C2'	1:AA:814:A:H5''	2.37	0.54
1:AA:1162:C:O2'	1:AA:1163:A:O4'	2.19	0.54
1:AA:1349:A:O2'	1:AA:1350:A:C5'	2.56	0.54
1:AA:1473:G:O2'	1:AA:1474:U:H5'	2.08	0.54
2:AB:56:LEU:HD11	2:AB:220:VAL:CG2	2.38	0.54
7:AG:39:GLU:HB2	7:AG:43:TYR:CE2	2.42	0.54
10:AJ:57:VAL:CG2	10:AJ:58:ASN:N	2.70	0.54
12:AL:6:LEU:HD23	17:AQ:33:TYR:CE2	2.43	0.54
12:AL:87:LYS:O	12:AL:88:ASP:HB2	2.07	0.54
18:AR:46:THR:HG21	18:AR:51:GLN:OE1	2.08	0.54
20:AT:4:LYS:O	20:AT:5:SER:C	2.50	0.54
22:BA:223:A:C2	22:BA:407:G:N3	2.76	0.54
22:BA:962:G:H21	22:BA:2250:G:H1	1.56	0.54
22:BA:995:C:OP2	38:BQ:53:LYS:HE2	2.07	0.54
22:BA:1283:G:N2	22:BA:1285:A:H3'	2.22	0.54
22:BA:1319:C:O2	22:BA:1334:G:C2	2.61	0.54
22:BA:1352:U:C2'	22:BA:1353:A:H5'	2.38	0.54
22:BA:1508:A:O2'	22:BA:1509:A:C5'	2.56	0.54
22:BA:2277:G:C3'	22:BA:2278:A:H5''	2.38	0.54
22:BA:2359:C:H2'	22:BA:2359:C:O2	2.07	0.54
24:BC:171:VAL:HG22	24:BC:185:ALA:HA	1.90	0.54
25:BD:104:VAL:HA	25:BD:106:LYS:NZ	2.22	0.54
29:BH:134:VAL:HG21	29:BH:139:PHE:O	2.07	0.54
31:BJ:81:ILE:HG12	31:BJ:82:GLY:N	2.22	0.54
36:BO:41:ALA:HB2	36:BO:48:LEU:HD21	1.90	0.54
40:BS:83:LYS:O	40:BS:84:ARG:HD2	2.08	0.54
41:BT:28:ASN:HA	41:BT:91:GLN:OE1	2.08	0.54
46:BY:57:LEU:HA	46:BY:60:LYS:HB3	1.89	0.54
53:CA:153:C:O5'	53:CA:153:C:H6	1.91	0.54
53:CA:367:U:C6	53:CA:394:G:N2	2.77	0.54
53:CA:372:C:H4'	53:CA:373:A:H5'	1.90	0.54
53:CA:436:C:H2'	53:CA:437:U:H5'	1.90	0.54
53:CA:510:A:H5''	53:CA:511:C:P	2.47	0.54
53:CA:614:C:C4	53:CA:615:G:N7	2.75	0.54
53:CA:954:G:N1	53:CA:1228:C:N4	2.55	0.54
53:CA:1272:G:H2'	53:CA:1273:C:C5'	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:116:LEU:CD2	4:CD:153:ARG:HH11	2.21	0.54
5:CE:80:LEU:N	5:CE:121:ASN:ND2	2.53	0.54
6:CF:47:LEU:HD22	18:CR:65:SER:CB	2.38	0.54
9:CI:15:ALA:O	9:CI:66:VAL:HG23	2.07	0.54
12:CL:97:VAL:CG2	12:CL:100:ALA:HB3	2.38	0.54
55:CM:95:PRO:CD	55:CM:108:ARG:HG2	2.24	0.54
22:DA:21:A:H2'	22:DA:22:C:C6	2.43	0.54
22:DA:67:U:H2'	22:DA:68:G:C8	2.41	0.54
22:DA:468:G:H5''	26:DE:55:SER:CB	2.38	0.54
22:DA:1055:G:C2'	22:DA:1056:G:H5'	2.38	0.54
22:DA:1060:U:C5'	22:DA:1061:U:H2'	2.37	0.54
22:DA:1087:G:C6	22:DA:1089:A:C2	2.96	0.54
22:DA:1619:G:O2'	22:DA:1620:G:H5'	2.08	0.54
22:DA:1993:U:O2'	22:DA:1994:C:C5'	2.56	0.54
22:DA:2209:G:C5	22:DA:2210:U:C4	2.96	0.54
22:DA:2408:U:C2'	22:DA:2409:G:C8	2.90	0.54
22:DA:2552:U:N3	22:DA:2554:U:H5'	2.22	0.54
22:DA:2868:A:O2'	22:DA:2869:G:H5'	2.07	0.54
58:DF:14:LYS:HB3	58:DF:14:LYS:HZ2	1.73	0.54
58:DF:59:ILE:CD1	58:DF:137:PHE:HZ	2.14	0.54
30:DI:109:ALA:HB1	30:DI:125:THR:HA	1.90	0.54
31:DJ:89:PHE:CE2	31:DJ:100:VAL:HG11	2.43	0.54
32:DK:34:GLY:C	32:DK:35:VAL:HG22	2.33	0.54
33:DL:81:ASP:O	33:DL:83:ALA:N	2.40	0.54
34:DM:73:ILE:HG21	34:DM:91:TYR:CZ	2.42	0.54
34:DM:73:ILE:CG1	34:DM:93:VAL:HG12	2.38	0.54
42:DU:11:ILE:HG21	42:DU:79:ALA:HB2	1.90	0.54
43:DV:73:LYS:HB3	43:DV:92:VAL:CG2	2.38	0.54
49:D1:46:VAL:HG22	49:D1:47:ILE:H	1.73	0.54
1:AA:922:G:H4'	5:AE:24:VAL:HA	1.88	0.53
1:AA:1055:A:N7	1:AA:1206:G:C2	2.76	0.53
1:AA:1082:A:O2'	1:AA:1083:U:H5'	2.07	0.53
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.73	0.53
3:AC:38:VAL:O	3:AC:42:LEU:HB2	2.08	0.53
4:AD:98:ASP:HB3	4:AD:114:ARG:HG2	1.91	0.53
10:AJ:81:GLU:C	10:AJ:84:VAL:HG12	2.33	0.53
11:AK:59:PRO:HD3	11:AK:90:PRO:HB3	1.90	0.53
14:AN:86:ALA:O	14:AN:91:GLU:HB2	2.08	0.53
20:AT:79:THR:HG22	20:AT:80:ALA:N	2.22	0.53
22:BA:250:G:C6	22:BA:251:A:C6	2.96	0.53
22:BA:459:U:O2'	22:BA:460:A:H5'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:551:G:C6	22:BA:552:U:C4	2.96	0.53
22:BA:856:G:H1'	44:BW:23:LYS:CB	2.28	0.53
22:BA:976:G:C2	22:BA:977:G:C8	2.96	0.53
22:BA:1348:C:H2'	22:BA:1349:C:O5'	2.09	0.53
22:BA:1409:U:O2'	22:BA:1410:G:H5'	2.07	0.53
22:BA:1609:A:O2'	22:BA:1610:A:H5'	2.07	0.53
22:BA:1690:A:C2'	22:BA:1691:C:H5'	2.38	0.53
22:BA:2151:U:N3	22:BA:2152:G:C5	2.76	0.53
22:BA:2502:G:C5'	22:BA:2503:A:H5''	2.34	0.53
22:BA:2868:A:H2'	22:BA:2869:G:C8	2.42	0.53
28:BG:86:LEU:HD11	28:BG:132:LEU:HD21	1.90	0.53
29:BH:9:VAL:HG12	29:BH:9:VAL:O	2.07	0.53
29:BH:89:LYS:O	29:BH:90:LEU:HD12	2.08	0.53
32:BK:68:GLY:O	32:BK:69:VAL:HG23	2.08	0.53
33:BL:38:GLN:O	33:BL:40:SER:O	2.26	0.53
35:BN:55:ALA:HB1	35:BN:80:PHE:N	2.23	0.53
39:BR:4:VAL:HA	39:BR:12:HIS:O	2.08	0.53
42:BU:51:LEU:O	42:BU:52:ASN:HB2	2.08	0.53
44:BW:18:LYS:CA	44:BW:36:ILE:CG1	2.79	0.53
44:BW:28:GLU:H	44:BW:31:LEU:HG	1.73	0.53
49:B1:8:ILE:CD1	49:B1:52:LYS:HB2	2.38	0.53
53:CA:70:U:H2'	53:CA:94:G:N7	2.23	0.53
53:CA:198:G:O2'	53:CA:199:A:H8	1.92	0.53
53:CA:247:G:OP1	53:CA:247:G:H4'	2.07	0.53
53:CA:269:C:H2'	53:CA:270:A:H8	1.73	0.53
53:CA:496:A:N3	53:CA:496:A:C2'	2.68	0.53
53:CA:598:U:H4'	8:CH:85:TYR:CD1	2.42	0.53
53:CA:737:C:OP1	6:CF:91:ARG:HB3	2.08	0.53
53:CA:782:A:H2'	53:CA:783:C:H5'	1.90	0.53
53:CA:994:A:O2'	53:CA:995:C:H6	1.91	0.53
54:CG:112:ASP:HB3	54:CG:117:LEU:CB	2.38	0.53
9:CI:117:LEU:CD2	9:CI:123:ARG:HD3	2.37	0.53
55:CM:36:ALA:HB2	55:CM:55:LEU:HD21	1.89	0.53
56:CP:44:SER:N	56:CP:46:LYS:HZ3	2.04	0.53
21:CU:33:ARG:NH2	21:CU:34:ARG:HD3	2.23	0.53
22:DA:201:C:C4	22:DA:202:U:C5	2.96	0.53
22:DA:307:G:N2	22:DA:310:A:C8	2.76	0.53
22:DA:638:G:C2'	22:DA:639:U:C6	2.90	0.53
22:DA:684:G:C2	22:DA:794:A:C2	2.96	0.53
22:DA:831:G:O2'	22:DA:832:U:H5'	2.07	0.53
22:DA:973:A:P	39:DR:81:LYS:HE3	2.48	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:995:C:HO2'	38:DQ:60:TRP:HZ2	1.45	0.53
22:DA:1090:A:H2'	22:DA:1091:G:H5''	1.88	0.53
22:DA:1339:G:H21	22:DA:1603:A:H1'	1.73	0.53
22:DA:1426:G:H8	22:DA:1426:G:OP2	1.91	0.53
22:DA:1438:U:O2'	22:DA:1439:A:H5'	2.08	0.53
22:DA:1519:G:N3	22:DA:1519:G:H2'	2.22	0.53
22:DA:1551:A:H2'	22:DA:1552:A:O4'	2.07	0.53
22:DA:1794:A:H2'	22:DA:1795:C:C6	2.43	0.53
22:DA:2107:G:H2'	22:DA:2108:A:C8	2.43	0.53
22:DA:2261:C:N4	44:DW:10:ARG:HB3	2.24	0.53
22:DA:2298:A:O2'	22:DA:2299:U:C5'	2.55	0.53
22:DA:2681:C:H4'	22:DA:2682:A:O5'	2.08	0.53
22:DA:2748:A:N1	22:DA:2757:A:N7	2.56	0.53
22:DA:2756:U:C1'	22:DA:2757:A:C5'	2.86	0.53
22:DA:2808:G:O2'	22:DA:2809:A:H8	1.92	0.53
57:DB:16:G:O6	57:DB:69:G:C5	2.61	0.53
25:DD:118:PHE:O	25:DD:119:ALA:CB	2.56	0.53
25:DD:131:ASP:OD2	25:DD:131:ASP:N	2.42	0.53
26:DE:46:GLN:HB3	26:DE:86:ALA:CB	2.38	0.53
29:DH:120:GLY:O	29:DH:121:VAL:HB	2.08	0.53
31:DJ:140:LEU:C	31:DJ:140:LEU:HD13	2.33	0.53
32:DK:34:GLY:H	32:DK:37:ASP:HB2	1.73	0.53
34:DM:76:LYS:HZ1	34:DM:84:LYS:H	1.56	0.53
35:DN:21:PHE:N	35:DN:21:PHE:CD1	2.76	0.53
36:DO:4:LYS:HG3	36:DO:8:ILE:CD1	2.38	0.53
37:DP:75:THR:HG23	37:DP:76:HIS:CD2	2.43	0.53
40:DS:50:VAL:O	40:DS:53:SER:HB3	2.07	0.53
41:DT:28:ASN:O	41:DT:29:THR:CG2	2.56	0.53
42:DU:58:VAL:HG12	42:DU:59:GLU:N	2.22	0.53
51:D3:18:LYS:HG3	51:D3:19:GLY:N	2.22	0.53
1:AA:49:U:O2'	1:AA:50:A:H2'	2.08	0.53
1:AA:116:A:O5'	1:AA:116:A:H8	1.91	0.53
1:AA:322:C:O2'	20:AT:17:ARG:HG2	2.07	0.53
1:AA:519:C:O2'	1:AA:520:A:H5'	2.08	0.53
1:AA:666:G:C6	1:AA:741:G:C6	2.96	0.53
1:AA:695:A:H2'	1:AA:696:A:C8	2.43	0.53
1:AA:1151:A:C6	1:AA:1152:A:N6	2.76	0.53
1:AA:1152:A:H2'	1:AA:1153:G:H8	1.73	0.53
2:AB:79:VAL:O	2:AB:83:ALA:HB3	2.08	0.53
3:AC:69:THR:O	3:AC:105:VAL:HG23	2.08	0.53
4:AD:77:GLU:HA	4:AD:77:GLU:OE1	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:23:LEU:CB	12:AL:58:ASN:ND2	2.61	0.53
13:AM:39:ALA:HB3	13:AM:42:VAL:HG22	1.89	0.53
16:AP:2:VAL:HG23	16:AP:65:ALA:HA	1.89	0.53
16:AP:20:VAL:CG2	16:AP:21:VAL:N	2.70	0.53
22:BA:43:G:C2	22:BA:437:U:N3	2.77	0.53
22:BA:164:C:O2'	22:BA:165:A:H5'	2.07	0.53
22:BA:994:C:O3'	22:BA:995:C:H3'	2.08	0.53
22:BA:1446:C:H2'	22:BA:1447:C:C6	2.43	0.53
22:BA:1733:G:O2'	22:BA:1734:G:C5'	2.57	0.53
22:BA:2150:C:C2'	22:BA:2151:U:C5	2.82	0.53
22:BA:2188:U:H2'	22:BA:2189:U:C6	2.42	0.53
22:BA:2425:A:C5'	22:BA:2427:C:H5'	2.37	0.53
22:BA:2705:A:H2'	22:BA:2706:A:O4'	2.08	0.53
24:BC:69:ASN:O	24:BC:70:LYS:C	2.49	0.53
24:BC:182:LYS:O	24:BC:183:VAL:CG2	2.55	0.53
27:BF:134:GLN:NE2	27:BF:134:GLN:N	2.41	0.53
28:BG:109:SER:O	28:BG:110:HIS:HB3	2.08	0.53
33:BL:101:ILE:HG22	33:BL:102:GLY:H	1.73	0.53
40:BS:6:LYS:HB2	40:BS:103:ILE:O	2.07	0.53
44:BW:22:VAL:O	44:BW:25:PHE:CD2	2.56	0.53
45:BX:40:GLU:O	45:BX:43:LYS:HD2	2.08	0.53
49:B1:3:GLY:C	49:B1:4:ILE:HG23	2.31	0.53
50:B2:12:ARG:HG3	50:B2:13:ASN:N	2.23	0.53
53:CA:33:A:C4	53:CA:34:C:C5	2.97	0.53
53:CA:209:U:C5'	53:CA:210:C:OP2	2.51	0.53
53:CA:216:U:H4'	53:CA:464:U:H4'	1.89	0.53
53:CA:1172:C:HO2'	53:CA:1173:U:H5'	1.71	0.53
2:CB:19:THR:OG1	2:CB:20:ARG:N	2.40	0.53
3:CC:110:LEU:HD23	3:CC:110:LEU:C	2.33	0.53
6:CF:98:GLU:O	6:CF:99:ALA:CB	2.56	0.53
11:CK:19:VAL:HG12	11:CK:34:THR:CG2	2.38	0.53
22:DA:74:A:H4'	22:DA:75:G:O5'	2.07	0.53
22:DA:251:A:H4'	33:DL:47:ARG:NH2	2.24	0.53
22:DA:464:U:C6	22:DA:788:A:C2	2.97	0.53
22:DA:576:U:H2'	22:DA:577:G:C8	2.43	0.53
22:DA:605:G:H2'	22:DA:606:U:H6	1.73	0.53
22:DA:606:U:O2'	22:DA:607:U:C4'	2.57	0.53
22:DA:826:U:O2'	33:DL:53:GLY:HA3	2.08	0.53
22:DA:1107:G:C2'	22:DA:1108:U:H5'	2.38	0.53
22:DA:1387:A:N3	22:DA:1388:G:C8	2.77	0.53
22:DA:1773:A:H2'	22:DA:1774:C:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2204:G:C2	22:DA:2205:A:C8	2.95	0.53
22:DA:2230:G:H2'	22:DA:2231:U:H6	1.72	0.53
22:DA:2353:G:H2'	22:DA:2354:C:O4'	2.07	0.53
25:DD:124:ARG:NH1	25:DD:125:TRP:CZ2	2.76	0.53
26:DE:112:LEU:CD1	26:DE:118:LEU:HD13	2.33	0.53
26:DE:149:ILE:CG2	26:DE:188:MET:HB2	2.39	0.53
29:DH:94:ILE:HG13	29:DH:98:ASP:CG	2.33	0.53
34:DM:62:LYS:C	34:DM:63:ILE:HD12	2.33	0.53
37:DP:91:VAL:HG22	37:DP:109:ILE:HD13	1.89	0.53
40:DS:7:HIS:CE1	40:DS:10:ALA:CA	2.91	0.53
41:DT:61:LEU:HD12	41:DT:61:LEU:O	2.07	0.53
43:DV:8:VAL:HG13	43:DV:66:ASP:OD2	2.08	0.53
45:DX:11:PRO:HB2	45:DX:27:ARG:HH21	1.71	0.53
49:D1:24:LYS:HE2	49:D1:52:LYS:NZ	2.23	0.53
1:AA:17:U:H2'	1:AA:18:C:C6	2.44	0.53
1:AA:508:U:O2'	1:AA:509:A:C8	2.60	0.53
1:AA:560:A:H5'	1:AA:566:G:H21	1.70	0.53
1:AA:656:G:N2	15:AO:22:GLY:HA3	2.24	0.53
1:AA:821:G:H2'	1:AA:822:U:H6	1.72	0.53
1:AA:972:C:P	10:AJ:59:LYS:HE3	2.48	0.53
1:AA:1173:U:H2'	1:AA:1174:G:C8	2.43	0.53
1:AA:1478:U:H2'	1:AA:1479:C:H6	1.73	0.53
2:AB:53:LEU:CA	2:AB:56:LEU:HB3	2.35	0.53
4:AD:35:GLN:O	4:AD:36:ALA:HB2	2.08	0.53
9:AI:25:GLY:N	9:AI:58:GLU:HA	2.23	0.53
14:AN:88:MET:HE1	14:AN:97:LYS:HD2	1.88	0.53
19:AS:64:GLU:CD	19:AS:64:GLU:N	2.66	0.53
20:AT:27:MET:O	20:AT:31:ILE:HG13	2.07	0.53
22:BA:34:U:H1'	22:BA:35:G:OP1	2.08	0.53
22:BA:302:C:H2'	22:BA:303:G:H8	1.73	0.53
22:BA:414:C:H2'	22:BA:415:A:C8	2.43	0.53
22:BA:532:A:N7	22:BA:2021:C:H2'	2.23	0.53
22:BA:1142:A:C4	22:BA:1144:A:C8	2.96	0.53
22:BA:1182:G:C2'	22:BA:1183:U:H5'	2.38	0.53
22:BA:1605:C:C2'	22:BA:1606:C:H5'	2.38	0.53
22:BA:2307:G:N2	22:BA:2311:A:C8	2.76	0.53
22:BA:2648:G:H2'	22:BA:2649:C:C6	2.43	0.53
22:BA:2726:A:O2'	22:BA:2727:A:H5'	2.08	0.53
22:BA:2749:A:OP1	28:BG:3:VAL:HG12	2.08	0.53
23:BB:51:G:N2	23:BB:53:A:N6	2.56	0.53
24:BC:259:ASN:O	24:BC:261:ARG:N	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:96:ALA:CB	28:BG:103:ASN:HB3	2.38	0.53
31:BJ:44:TYR:HA	38:BQ:59:LEU:CD2	2.38	0.53
53:CA:66:A:C6	53:CA:67:C:C4	2.97	0.53
53:CA:338:A:N6	53:CA:351:G:H1	2.05	0.53
53:CA:460:A:O2'	53:CA:462:G:H5'	2.08	0.53
53:CA:652:U:HO2'	53:CA:653:U:P	2.31	0.53
53:CA:989:U:C4	53:CA:990:C:C5	2.96	0.53
53:CA:1117:A:C2	53:CA:1184:G:C6	2.95	0.53
53:CA:1123:U:O3'	10:CJ:38:GLY:HA3	2.09	0.53
53:CA:1234:C:C4'	53:CA:1364:U:O2'	2.55	0.53
3:CC:100:ILE:HD12	3:CC:101:ASN:H	1.73	0.53
3:CC:116:ALA:HB2	3:CC:199:VAL:HG21	1.89	0.53
3:CC:126:ARG:HE	3:CC:126:ARG:CA	2.16	0.53
9:CI:6:TYR:CE2	9:CI:17:ARG:HA	2.43	0.53
12:CL:113:ARG:HD2	12:CL:118:VAL:CG1	2.38	0.53
55:CM:13:HIS:CB	55:CM:16:ILE:HB	2.37	0.53
55:CM:85:TYR:HE2	55:CM:96:VAL:HG13	1.71	0.53
22:DA:75:G:O2'	22:DA:76:C:C6	2.61	0.53
22:DA:179:C:H2'	22:DA:180:G:O4'	2.08	0.53
22:DA:242:G:C8	51:D3:3:ILE:O	2.59	0.53
22:DA:244:A:H2'	22:DA:245:G:O4'	2.08	0.53
22:DA:301:G:O3'	42:DU:81:ARG:NH1	2.42	0.53
22:DA:465:G:H4'	50:D2:16:HIS:HD2	1.72	0.53
22:DA:497:A:H2'	22:DA:498:G:C1'	2.39	0.53
22:DA:1286:A:O2'	22:DA:1288:G:N2	2.42	0.53
22:DA:1413:A:C6	22:DA:1414:C:N4	2.77	0.53
22:DA:1739:A:O2'	22:DA:1740:G:C5'	2.57	0.53
22:DA:1802:A:C2	22:DA:1803:A:C6	2.97	0.53
22:DA:1945:G:H2'	22:DA:1946:U:C6	2.43	0.53
22:DA:1997:C:HO2'	22:DA:1998:A:C5'	2.21	0.53
22:DA:2143:C:H5''	22:DA:2144:G:N7	2.24	0.53
22:DA:2753:A:H2'	22:DA:2754:U:C6	2.43	0.53
22:DA:2882:A:H5'	35:DN:96:ARG:HD3	1.90	0.53
22:DA:2882:A:H5''	35:DN:96:ARG:HD3	1.88	0.53
24:DC:71:ASP:CA	24:DC:117:SER:O	2.56	0.53
26:DE:5:LEU:CD2	26:DE:120:VAL:HG22	2.38	0.53
58:DF:11:VAL:C	58:DF:13:LYS:H	2.16	0.53
31:DJ:30:THR:CG2	31:DJ:31:GLU:N	2.71	0.53
34:DM:41:LEU:O	34:DM:93:VAL:HG23	2.09	0.53
45:DX:58:ILE:CG1	45:DX:66:VAL:HG11	2.36	0.53
1:AA:121:U:OP2	1:AA:121:U:H4'	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:674:G:H4'	18:AR:69:TYR:CD1	2.44	0.53
1:AA:1486:G:H2'	1:AA:1487:G:O4'	2.08	0.53
1:AA:1531:A:O2'	1:AA:1532:U:H5'	2.07	0.53
2:AB:14:HIS:O	2:AB:14:HIS:CG	2.62	0.53
2:AB:61:SER:C	2:AB:63:LYS:H	2.16	0.53
6:AF:63:ASN:ND2	6:AF:96:VAL:HG22	2.23	0.53
7:AG:110:ARG:NH1	7:AG:110:ARG:HB2	2.22	0.53
9:AI:49:GLN:O	9:AI:52:GLU:HG3	2.07	0.53
17:AQ:58:VAL:HG22	17:AQ:59:GLU:N	2.24	0.53
22:BA:623:C:H2'	22:BA:624:C:C6	2.43	0.53
22:BA:923:G:H4'	44:BW:25:PHE:CE1	2.43	0.53
22:BA:945:A:O3'	22:BA:946:C:H4'	2.08	0.53
22:BA:1274:A:N3	22:BA:1297:C:H1'	2.23	0.53
22:BA:1276:A:H8	22:BA:1276:A:C5'	2.21	0.53
22:BA:1343:G:H2'	22:BA:1344:U:H6	1.74	0.53
22:BA:1490:A:C8	24:BC:73:ILE:HD13	2.42	0.53
22:BA:1842:G:H2'	22:BA:1843:C:H6	1.72	0.53
22:BA:2064:C:H2'	22:BA:2065:C:C6	2.43	0.53
22:BA:2507:C:O2	22:BA:2507:C:H2'	2.09	0.53
22:BA:2508:G:H2'	22:BA:2509:G:C5'	2.38	0.53
22:BA:2672:U:C2'	22:BA:2673:G:O5'	2.57	0.53
23:BB:110:C:C4	23:BB:111:U:C5	2.96	0.53
28:BG:33:THR:N	28:BG:34:ARG:NH1	2.56	0.53
28:BG:61:TRP:O	28:BG:62:ALA:C	2.51	0.53
32:BK:71:ARG:HA	32:BK:71:ARG:HE	1.73	0.53
32:BK:88:ASN:HD22	32:BK:90:ASN:H	1.57	0.53
33:BL:29:LYS:C	33:BL:30:THR:HG23	2.34	0.53
36:BO:62:LEU:HD22	36:BO:70:ALA:HA	1.90	0.53
37:BP:1:SER:H2	37:BP:4:ILE:HG13	1.72	0.53
37:BP:30:TRP:CZ3	37:BP:39:LEU:CD1	2.92	0.53
38:BQ:104:ALA:O	38:BQ:107:ALA:HB3	2.08	0.53
39:BR:3:ALA:CB	39:BR:59:ILE:HD11	2.39	0.53
39:BR:28:ALA:O	39:BR:63:VAL:CG2	2.52	0.53
45:BX:4:CYS:HB2	45:BX:51:SER:HB3	1.90	0.53
47:BZ:9:THR:HG21	47:BZ:53:MET:C	2.33	0.53
48:B0:54:ILE:O	48:B0:54:ILE:HG22	2.07	0.53
53:CA:52:C:O2'	53:CA:53:A:H5'	2.07	0.53
53:CA:93:U:C2	53:CA:95:C:N4	2.76	0.53
53:CA:279:A:H4'	53:CA:280:C:O5'	2.08	0.53
53:CA:356:A:H2'	53:CA:357:G:O4'	2.09	0.53
53:CA:1138:G:N2	53:CA:1140:C:C4	2.77	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1151:A:H2'	53:CA:1152:A:C8	2.41	0.53
53:CA:1301:U:O2'	53:CA:1302:C:H5	1.91	0.53
53:CA:1446:A:C2'	53:CA:1447:A:C5'	2.86	0.53
2:CB:103:TRP:O	2:CB:107:ARG:HB3	2.08	0.53
4:CD:29:THR:C	4:CD:31:CYS:H	2.17	0.53
8:CH:52:GLY:HA3	8:CH:56:PRO:HA	1.90	0.53
8:CH:58:LEU:CD2	8:CH:60:LEU:CD1	2.86	0.53
11:CK:12:ARG:N	11:CK:12:ARG:CD	2.71	0.53
12:CL:82:ARG:HH11	12:CL:82:ARG:HG2	1.72	0.53
55:CM:111:PRO:HG2	55:CM:113:LYS:HG3	1.89	0.53
14:CN:12:ARG:HB3	14:CN:59:GLN:HG2	1.90	0.53
15:CO:20:ASP:OD1	15:CO:23:SER:HB2	2.07	0.53
56:CP:66:THR:HG22	56:CP:67:ILE:N	2.24	0.53
18:CR:32:ILE:HD12	18:CR:32:ILE:O	2.07	0.53
20:CT:42:ASP:O	20:CT:43:LYS:C	2.52	0.53
22:DA:117:G:O4'	22:DA:126:A:H2	1.90	0.53
22:DA:792:A:H1'	22:DA:2072:C:O2'	2.08	0.53
22:DA:1028:A:C2	22:DA:1029:A:C5	2.96	0.53
22:DA:1132:U:H5''	31:DJ:84:ILE:CD1	2.37	0.53
22:DA:1771:C:O2'	22:DA:1786:A:H1'	2.09	0.53
22:DA:1854:A:O4'	22:DA:2233:U:H4'	2.08	0.53
22:DA:1941:C:H2'	22:DA:1942:C:C6	2.44	0.53
22:DA:1992:G:N2	22:DA:1995:U:C5	2.76	0.53
22:DA:2836:U:O2'	22:DA:2837:A:H8	1.92	0.53
22:DA:2837:A:N6	22:DA:2882:A:N6	2.56	0.53
57:DB:90:C:H6	57:DB:90:C:C5'	2.20	0.53
28:DG:88:LEU:N	28:DG:128:THR:O	2.41	0.53
31:DJ:2:LYS:HB2	31:DJ:2:LYS:HZ3	1.72	0.53
35:DN:35:LYS:HD3	35:DN:112:TYR:OH	2.07	0.53
37:DP:50:ARG:O	37:DP:51:ASN:HB2	2.09	0.53
37:DP:52:ARG:HG2	37:DP:52:ARG:NH1	2.24	0.53
43:DV:2:PHE:CD1	43:DV:50:MET:HE3	2.43	0.53
44:DW:24:ARG:HH21	44:DW:65:LYS:HG2	1.72	0.53
1:AA:173:U:C2	1:AA:197:A:C2	2.97	0.53
1:AA:266:G:OP2	1:AA:267:C:C5	2.61	0.53
1:AA:382:A:H2'	1:AA:383:A:C8	2.44	0.53
1:AA:781:A:H2'	1:AA:782:A:H5'	1.90	0.53
1:AA:1151:A:O2'	1:AA:1152:A:H8	1.91	0.53
1:AA:1381:U:O2'	1:AA:1382:C:C5'	2.56	0.53
2:AB:9:LEU:HD21	2:AB:11:ALA:O	2.09	0.53
3:AC:39:ARG:CD	3:AC:54:ILE:HD11	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AE:152:VAL:C	5:AE:156:ARG:HB2	2.33	0.53
11:AK:22:ILE:HG21	11:AK:95:THR:HG21	1.89	0.53
12:AL:34:THR:HB	12:AL:35:ARG:HG2	1.90	0.53
12:AL:72:ASN:HD22	12:AL:73:LEU:H	1.53	0.53
15:AO:17:ASP:O	15:AO:20:ASP:HB3	2.09	0.53
19:AS:14:LEU:O	19:AS:14:LEU:HD12	2.07	0.53
22:BA:1421:G:C2	22:BA:1422:G:C8	2.97	0.53
22:BA:1688:U:H1'	22:BA:1701:A:C6	2.43	0.53
22:BA:1734:G:C4	22:BA:1735:A:C8	2.97	0.53
22:BA:1746:A:C2	22:BA:1747:U:N3	2.76	0.53
22:BA:1820:U:O2	24:BC:199:HIS:HB3	2.08	0.53
22:BA:1962:C:H4'	22:BA:1963:U:OP1	2.08	0.53
22:BA:1983:G:O2'	22:BA:1984:G:H5'	2.08	0.53
22:BA:2286:G:H4'	22:BA:2287:A:O4'	2.09	0.53
22:BA:2502:G:C5'	22:BA:2503:A:C5'	2.86	0.53
29:BH:110:VAL:O	29:BH:111:ALA:HB2	2.08	0.53
37:BP:102:ARG:C	37:BP:103:THR:HG22	2.34	0.53
39:BR:61:ALA:CB	39:BR:98:ILE:HA	2.37	0.53
46:BY:39:GLN:HB2	46:BY:41:HIS:CD2	2.44	0.53
53:CA:182:A:C2	53:CA:184:G:C6	2.96	0.53
53:CA:815:A:H4'	53:CA:817:C:C4	2.44	0.53
53:CA:996:A:N6	53:CA:1046:A:O4'	2.41	0.53
53:CA:1046:A:N1	53:CA:1213:A:C6	2.77	0.53
53:CA:1067:A:H1'	53:CA:1068:G:H8	1.69	0.53
2:CB:20:ARG:HA	2:CB:20:ARG:HE	1.73	0.53
2:CB:20:ARG:HA	2:CB:20:ARG:NE	2.24	0.53
54:CG:35:LYS:O	9:CI:42:THR:HG21	2.09	0.53
10:CJ:52:LEU:HA	10:CJ:62:ARG:HG2	1.90	0.53
12:CL:14:LYS:HE2	12:CL:15:VAL:C	2.33	0.53
15:CO:16:ARG:HB2	15:CO:23:SER:CB	2.37	0.53
22:DA:121:G:N2	22:DA:131:A:C4	2.76	0.53
22:DA:303:G:C6	22:DA:315:G:C6	2.97	0.53
22:DA:352:A:H3'	22:DA:353:C:C5'	2.39	0.53
22:DA:605:G:O2'	22:DA:606:U:O4'	2.26	0.53
22:DA:675:A:OP1	26:DE:60:TRP:HZ2	1.91	0.53
22:DA:830:G:N3	22:DA:2448:A:C6	2.77	0.53
22:DA:929:U:O2'	22:DA:930:G:H5'	2.08	0.53
22:DA:1083:U:H1'	22:DA:1086:A:N1	2.23	0.53
22:DA:1775:U:C2'	22:DA:1776:G:O5'	2.56	0.53
22:DA:1798:U:C5	24:DC:270:ARG:NH1	2.76	0.53
22:DA:2058:A:N6	22:DA:2059:A:N6	2.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2148:G:O2'	22:DA:2149:U:C5	2.62	0.53
22:DA:2392:A:C2	33:DL:55:MET:HE3	2.43	0.53
22:DA:2852:G:O2'	22:DA:2853:C:H5'	2.08	0.53
57:DB:30:C:H2'	57:DB:30:C:O2	2.08	0.53
58:DF:4:HIS:CE1	58:DF:96:TRP:CZ2	2.96	0.53
28:DG:90:GLY:HA3	28:DG:93:TYR:CZ	2.42	0.53
28:DG:162:ARG:HB2	28:DG:166:GLU:CB	2.39	0.53
30:DI:57:VAL:CG1	30:DI:58:ILE:H	2.14	0.53
34:DM:81:ARG:HH21	34:DM:84:LYS:NZ	2.07	0.53
35:DN:22:ARG:O	35:DN:22:ARG:CG	2.56	0.53
36:DO:74:VAL:HB	36:DO:106:LEU:CD1	2.39	0.53
41:DT:14:PRO:O	41:DT:32:LEU:HA	2.08	0.53
46:DY:25:GLN:O	46:DY:29:ARG:HD3	2.08	0.53
48:D0:30:ASP:OD1	48:D0:47:TYR:HB3	2.09	0.53
1:AA:108:G:H2'	1:AA:109:A:OP1	2.08	0.53
1:AA:182:A:C2	1:AA:184:G:C8	2.96	0.53
1:AA:300:A:H1'	1:AA:565:U:O2	2.09	0.53
1:AA:702:A:N9	22:BA:1847:A:H2	2.06	0.53
1:AA:1124:G:HO2'	1:AA:1125:U:H6	1.55	0.53
1:AA:1273:C:H2'	1:AA:1274:A:O4'	2.08	0.53
1:AA:1279:G:N3	1:AA:1279:G:C2'	2.67	0.53
2:AB:65:LYS:HG2	2:AB:153:MET:HG3	1.90	0.53
3:AC:39:ARG:CZ	3:AC:54:ILE:HD11	2.38	0.53
3:AC:86:LEU:O	3:AC:90:VAL:HG23	2.07	0.53
3:AC:106:ARG:HG2	3:AC:106:ARG:O	2.08	0.53
9:AI:128:LYS:HD2	9:AI:129:ARG:H	1.74	0.53
16:AP:21:VAL:O	16:AP:33:ILE:N	2.41	0.53
17:AQ:14:ASP:O	17:AQ:16:MET:SD	2.67	0.53
22:BA:37:C:O2'	26:BE:45:ALA:HB2	2.09	0.53
22:BA:1011:G:C2	22:BA:1151:A:C2	2.97	0.53
22:BA:1060:U:O4'	22:BA:1062:G:C5'	2.54	0.53
22:BA:1300:G:H1'	22:BA:1626:A:C2	2.43	0.53
22:BA:2086:U:H2'	22:BA:2087:G:C8	2.44	0.53
22:BA:2323:G:C2'	22:BA:2324:U:H5'	2.39	0.53
22:BA:2590:A:H2'	22:BA:2591:C:C6	2.44	0.53
24:BC:12:ARG:HA	24:BC:15:VAL:HG23	1.90	0.53
25:BD:34:VAL:HG22	25:BD:94:GLN:H	1.74	0.53
27:BF:134:GLN:HE22	27:BF:150:GLY:H	1.57	0.53
27:BF:134:GLN:C	27:BF:136:ILE:H	2.17	0.53
28:BG:140:ILE:HD12	28:BG:141:GLY:H	1.67	0.53
31:BJ:38:GLY:C	31:BJ:40:HIS:H	2.16	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:74:TYR:OH	31:BJ:100:VAL:HG13	2.08	0.53
36:BO:55:GLU:OE1	36:BO:58:ILE:CD1	2.57	0.53
38:BQ:61:ILE:HG23	38:BQ:75:TYR:CE1	2.43	0.53
38:BQ:114:ALA:C	38:BQ:116:LEU:N	2.67	0.53
40:BS:39:THR:HG22	40:BS:39:THR:O	2.08	0.53
47:BZ:2:LYS:C	47:BZ:3:THR:CG2	2.81	0.53
53:CA:722:G:H2'	53:CA:722:G:N3	2.23	0.53
53:CA:886:G:H2'	53:CA:887:G:O4'	2.09	0.53
53:CA:936:C:O2'	53:CA:937:A:O5'	2.26	0.53
53:CA:1147:C:O2'	53:CA:1148:U:H6	1.91	0.53
53:CA:1239:A:H62	53:CA:1299:A:N6	2.07	0.53
53:CA:1370:G:H5''	9:CI:110:VAL:CG2	2.38	0.53
53:CA:1457:G:O2'	20:CT:26:MET:HG2	2.09	0.53
2:CB:80:LYS:O	2:CB:81:ASP:C	2.51	0.53
3:CC:46:LEU:CD2	3:CC:75:VAL:HG22	2.39	0.53
3:CC:136:ALA:HA	3:CC:139:ASN:HD21	1.73	0.53
6:CF:92:THR:O	6:CF:93:LYS:CG	2.54	0.53
10:CJ:33:GLY:O	10:CJ:35:GLN:N	2.41	0.53
15:CO:44:GLU:O	15:CO:45:HIS:C	2.51	0.53
56:CP:22:ALA:HA	56:CP:33:ILE:CD1	2.38	0.53
56:CP:52:LEU:O	56:CP:53:ASP:CB	2.57	0.53
22:DA:64:A:OP1	41:DT:77:ARG:HG2	2.08	0.53
22:DA:91:A:O2'	22:DA:92:U:C5'	2.52	0.53
22:DA:227:A:HO2'	22:DA:228:C:P	2.32	0.53
22:DA:287:G:N1	22:DA:354:A:C6	2.76	0.53
22:DA:324:A:N6	22:DA:338:G:O2'	2.41	0.53
22:DA:455:C:H3'	22:DA:456:C:H5'	1.90	0.53
22:DA:459:U:HO2'	22:DA:460:A:H8	1.57	0.53
22:DA:528:A:C2	22:DA:2043:C:C5'	2.92	0.53
22:DA:538:A:O2'	31:DJ:8:PRO:CD	2.57	0.53
22:DA:747:U:C2'	22:DA:2613:U:O4	2.56	0.53
22:DA:975:A:C2'	22:DA:976:G:H8	2.21	0.53
22:DA:1130:U:HO2'	22:DA:1131:G:H8	1.53	0.53
22:DA:1225:G:C6	22:DA:1226:A:N6	2.76	0.53
22:DA:1430:G:O2'	22:DA:1431:A:C5'	2.57	0.53
22:DA:1465:G:H2'	22:DA:1466:U:H6	1.74	0.53
22:DA:1566:A:C2	24:DC:212:TRP:HB2	2.44	0.53
22:DA:1607:C:N4	22:DA:1622:G:N7	2.56	0.53
22:DA:1833:C:C4	22:DA:1834:U:C5	2.97	0.53
22:DA:1993:U:H2'	22:DA:1994:C:C6	2.43	0.53
22:DA:2267:A:H2'	62:DA:3535:HOH:O	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2324:U:HO2'	22:DA:2385:C:H5	1.56	0.53
22:DA:2379:G:H2'	22:DA:2380:C:C6	2.43	0.53
22:DA:2721:A:H2'	22:DA:2722:G:O4'	2.09	0.53
22:DA:2817:U:H2'	22:DA:2818:U:O5'	2.09	0.53
29:DH:90:LEU:CD2	29:DH:91:PHE:H	2.22	0.53
31:DJ:43:GLU:O	31:DJ:45:THR:HG22	2.09	0.53
31:DJ:54:ILE:O	31:DJ:122:LEU:HD12	2.08	0.53
34:DM:1:MET:O	34:DM:2:LEU:O	2.27	0.53
34:DM:76:LYS:O	34:DM:77:PRO:O	2.27	0.53
35:DN:100:CYS:O	48:D0:41:HIS:HD2	1.91	0.53
37:DP:44:GLY:HA3	37:DP:60:VAL:HG12	1.90	0.53
41:DT:29:THR:CA	41:DT:87:LEU:HB2	2.39	0.53
45:DX:31:ASN:C	45:DX:32:LEU:HD22	2.33	0.53
45:DX:69:GLU:O	45:DX:70:LEU:HB2	2.08	0.53
48:D0:29:VAL:HG23	48:D0:35:GLU:O	2.08	0.53
48:D0:32:THR:HG21	48:D0:47:TYR:CD2	2.44	0.53
1:AA:251:G:C4'	1:AA:252:U:C5'	2.87	0.53
1:AA:564:C:H2'	1:AA:565:U:C6	2.43	0.53
1:AA:792:A:H4'	1:AA:793:U:C5'	2.39	0.53
1:AA:921:U:H2'	1:AA:922:G:O4'	2.08	0.53
1:AA:953:G:H2'	1:AA:954:G:O4'	2.09	0.53
1:AA:1057:G:O3'	3:AC:196:GLY:HA3	2.09	0.53
2:AB:17:HIS:CD2	2:AB:202:ASN:ND2	2.72	0.53
3:AC:125:ARG:O	3:AC:126:ARG:CB	2.56	0.53
5:AE:34:ALA:O	5:AE:49:TYR:O	2.27	0.53
5:AE:136:VAL:O	5:AE:137:ARG:CB	2.56	0.53
8:AH:9:MET:CE	8:AH:32:LYS:HG2	2.38	0.53
8:AH:58:LEU:HD11	8:AH:60:LEU:CD2	2.38	0.53
12:AL:23:LEU:O	12:AL:25:ALA:N	2.41	0.53
22:BA:2:G:O2'	22:BA:3:U:H5'	2.08	0.53
22:BA:43:G:C2	22:BA:437:U:C2	2.96	0.53
22:BA:264:C:O2'	22:BA:265:A:H3'	2.09	0.53
22:BA:543:G:C2	22:BA:544:C:H1'	2.43	0.53
22:BA:587:C:H42	33:BL:33:ARG:HD3	1.74	0.53
22:BA:1454:C:O2	35:BN:64:ARG:NE	2.39	0.53
22:BA:1524:G:O2'	22:BA:1525:A:H5'	2.09	0.53
22:BA:1670:C:H1'	22:BA:1993:U:O2	2.09	0.53
22:BA:1799:G:H2'	24:BC:179:GLU:OE2	2.09	0.53
22:BA:2415:G:H4'	33:BL:66:PHE:HB2	1.90	0.53
23:BB:50:A:C2'	23:BB:51:G:O5'	2.57	0.53
25:BD:34:VAL:HG23	25:BD:91:THR:HA	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:5:LEU:CD2	26:BE:122:GLU:HG2	2.38	0.53
26:BE:150:THR:CG2	26:BE:153:LEU:HA	2.39	0.53
27:BF:30:VAL:HG12	27:BF:96:TRP:CH2	2.43	0.53
28:BG:153:PRO:HD3	28:BG:161:VAL:O	2.08	0.53
32:BK:18:ARG:HB2	32:BK:45:GLU:HG2	1.89	0.53
37:BP:30:TRP:CE2	37:BP:39:LEU:HD11	2.44	0.53
37:BP:83:ILE:HD13	37:BP:84:SER:N	2.23	0.53
39:BR:39:LEU:CA	39:BR:49:ILE:CG2	2.86	0.53
41:BT:87:LEU:HB2	41:BT:91:GLN:HE21	1.73	0.53
43:BV:65:VAL:HG22	43:BV:65:VAL:O	2.08	0.53
47:BZ:52:PHE:CD2	47:BZ:52:PHE:C	2.87	0.53
53:CA:96:U:O2'	53:CA:97:G:C5'	2.57	0.53
53:CA:371:A:C2'	53:CA:372:C:H5'	2.39	0.53
53:CA:618:C:H3'	53:CA:619:U:C5'	2.38	0.53
53:CA:652:U:O2'	53:CA:653:U:P	2.67	0.53
53:CA:692:U:H2'	53:CA:694:A:OP2	2.09	0.53
53:CA:949:A:H4'	53:CA:1364:U:O4	2.08	0.53
53:CA:977:A:H4'	53:CA:981:U:O2	2.09	0.53
53:CA:1423:G:O2'	53:CA:1424:U:H5'	2.07	0.53
53:CA:1460:C:O5'	53:CA:1460:C:H6	1.92	0.53
3:CC:35:ASP:CG	3:CC:56:ILE:HD12	2.33	0.53
9:CI:35:GLU:CA	9:CI:39:GLY:HA3	2.36	0.53
14:CN:68:ARG:HG3	14:CN:69:PRO:CD	2.38	0.53
20:CT:2:ASN:O	20:CT:3:ILE:C	2.52	0.53
22:DA:27:G:O2'	22:DA:28:A:C8	2.61	0.53
22:DA:64:A:P	41:DT:77:ARG:HG2	2.48	0.53
22:DA:195:A:C5	22:DA:198:C:C5	2.97	0.53
22:DA:274:C:H2'	22:DA:275:C:O4'	2.09	0.53
22:DA:424:G:O2'	22:DA:425:G:C5'	2.55	0.53
22:DA:536:G:H2'	22:DA:537:G:H5'	1.90	0.53
22:DA:587:C:H1'	22:DA:671:C:C5'	2.36	0.53
22:DA:679:C:H2'	22:DA:680:C:H6	1.73	0.53
22:DA:1024:G:H3'	22:DA:1025:G:H5''	0.80	0.53
22:DA:1045:C:H4'	22:DA:1047:G:C4	2.43	0.53
22:DA:1346:G:O2'	22:DA:1347:A:O5'	2.27	0.53
22:DA:1417:C:H2'	22:DA:1418:G:C8	2.44	0.53
22:DA:1539:U:O2'	22:DA:1540:G:O4'	2.27	0.53
22:DA:2290:G:C5	22:DA:2291:U:C4	2.97	0.53
22:DA:2823:A:C4	22:DA:2824:C:C6	2.96	0.53
25:DD:14:ILE:HG22	25:DD:22:ILE:O	2.09	0.53
25:DD:113:SER:OG	25:DD:114:LYS:N	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:122:ASP:HB2	58:DF:126:ASN:CB	2.38	0.53
29:DH:62:LEU:HD12	29:DH:63:ALA:N	2.24	0.53
29:DH:132:PHE:CE1	29:DH:134:VAL:HB	2.41	0.53
31:DJ:2:LYS:HB2	31:DJ:2:LYS:HZ2	1.72	0.53
42:DU:43:LYS:HE3	42:DU:45:GLN:CG	2.38	0.53
45:DX:52:ALA:C	45:DX:54:GLY:H	2.17	0.53
1:AA:464:U:H2'	1:AA:466:A:OP2	2.08	0.53
1:AA:723:U:H5'	21:AU:48:LYS:HE2	1.89	0.53
1:AA:1161:C:O2'	1:AA:1162:C:H5'	2.08	0.53
1:AA:1492:A:H2'	1:AA:1493:A:H5''	1.90	0.53
2:AB:49:PHE:HB2	2:AB:53:LEU:HD23	1.90	0.53
3:AC:41:TYR:CZ	3:AC:89:VAL:HG21	2.44	0.53
4:AD:169:TRP:CD1	4:AD:170:LEU:HG	2.43	0.53
6:AF:2:ARG:HH21	6:AF:68:GLN:HE21	1.57	0.53
17:AQ:45:VAL:HG21	17:AQ:60:ILE:HD11	1.88	0.53
17:AQ:74:LEU:HD12	17:AQ:74:LEU:N	2.24	0.53
22:BA:226:A:C6	22:BA:227:A:C6	2.97	0.53
22:BA:301:G:O2'	22:BA:302:C:P	2.67	0.53
22:BA:533:G:H2'	22:BA:534:U:H6	1.71	0.53
22:BA:746:U:O2'	22:BA:747:U:P	2.66	0.53
22:BA:817:C:H2'	22:BA:818:G:C5'	2.39	0.53
22:BA:855:G:H1'	44:BW:23:LYS:CD	2.38	0.53
22:BA:1041:G:O2'	22:BA:1042:G:H5'	2.08	0.53
22:BA:1063:G:C2'	22:BA:1064:C:O4'	2.57	0.53
22:BA:1157:G:H1'	47:BZ:31:ILE:HD11	1.91	0.53
22:BA:1469:A:H2'	22:BA:1470:A:H8	1.67	0.53
22:BA:1654:A:O4'	25:BD:118:PHE:CE1	2.62	0.53
22:BA:1804:C:C4	22:BA:1805:A:N7	2.77	0.53
22:BA:1952:A:C5	32:BK:22:ILE:CG2	2.91	0.53
22:BA:2136:G:O2'	22:BA:2137:U:C5	2.60	0.53
22:BA:2720:U:OP1	37:BP:52:ARG:NH2	2.42	0.53
22:BA:2724:U:P	25:BD:116:LYS:HZ2	2.32	0.53
22:BA:2760:C:C2'	22:BA:2761:A:H5'	2.39	0.53
24:BC:51:ARG:O	24:BC:52:HIS:HB2	2.09	0.53
24:BC:196:ASN:O	24:BC:197:ALA:HB3	2.09	0.53
24:BC:250:GLN:N	24:BC:250:GLN:HE21	2.07	0.53
25:BD:49:GLN:NE2	25:BD:79:LEU:HD22	2.24	0.53
26:BE:37:ALA:HA	26:BE:40:ARG:HG3	1.91	0.53
27:BF:60:SER:HB2	27:BF:90:LEU:HD21	1.90	0.53
29:BH:24:GLY:O	29:BH:28:ASN:HB2	2.09	0.53
30:BI:126:ARG:HA	30:BI:129:GLU:CG	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:132:ARG:HA	33:BL:142:ILE:CD1	2.39	0.53
35:BN:47:VAL:O	35:BN:50:PRO:HD2	2.09	0.53
37:BP:105:LYS:O	37:BP:108:ARG:HD3	2.08	0.53
53:CA:80:A:H3'	53:CA:81:A:H4'	1.89	0.53
53:CA:515:G:N2	53:CA:537:G:C4	2.77	0.53
53:CA:740:U:O2'	53:CA:741:G:H5'	2.08	0.53
53:CA:1172:C:C2'	53:CA:1173:U:H5'	2.38	0.53
53:CA:1349:A:O2'	53:CA:1350:A:C5'	2.57	0.53
3:CC:84:GLU:C	3:CC:86:LEU:N	2.67	0.53
6:CF:8:PHE:CZ	6:CF:60:VAL:HB	2.43	0.53
12:CL:80:LEU:HD23	12:CL:97:VAL:HG21	1.90	0.53
22:DA:9:G:C6	22:DA:2895:G:O6	2.62	0.53
22:DA:13:A:N3	22:DA:15:G:O6	2.42	0.53
22:DA:90:U:C4	22:DA:91:A:C5	2.96	0.53
22:DA:227:A:C4'	22:DA:229:C:H41	2.21	0.53
22:DA:397:U:O2'	22:DA:398:C:O5'	2.26	0.53
22:DA:432:A:H8	22:DA:432:A:O5'	1.91	0.53
22:DA:831:G:H5''	33:DL:37:GLY:HA2	1.90	0.53
22:DA:1239:G:C5	22:DA:1240:U:C5	2.96	0.53
22:DA:1264:A:H1'	22:DA:2015:A:H61	1.73	0.53
22:DA:1455:G:O2'	22:DA:1456:G:C8	2.50	0.53
22:DA:1525:A:C6	22:DA:1526:C:C2	2.97	0.53
22:DA:2053:G:H2'	22:DA:2054:A:H5'	1.88	0.53
22:DA:2061:G:C2	22:DA:2063:C:C4	2.97	0.53
22:DA:2229:U:O2'	22:DA:2230:G:H5'	2.09	0.53
22:DA:2332:C:H4'	44:DW:40:ARG:CZ	2.39	0.53
57:DB:55:U:H1'	58:DF:25:MET:CE	2.39	0.53
57:DB:69:G:C5	57:DB:70:C:C5	2.96	0.53
25:DD:148:GLN:OE1	25:DD:152:PRO:HG2	2.09	0.53
26:DE:60:TRP:O	26:DE:61:ARG:CB	2.57	0.53
58:DF:129:MET:O	58:DF:129:MET:HG3	2.09	0.53
29:DH:38:PRO:HB2	29:DH:40:THR:HG23	1.91	0.53
29:DH:76:GLU:OE1	29:DH:102:ALA:HB2	2.09	0.53
30:DI:118:GLY:O	30:DI:123:ALA:HB3	2.09	0.53
31:DJ:64:VAL:HG21	31:DJ:68:LYS:HG3	1.90	0.53
31:DJ:89:PHE:HE2	31:DJ:100:VAL:HG11	1.73	0.53
31:DJ:142:ILE:HD12	31:DJ:142:ILE:N	2.23	0.53
33:DL:21:ARG:HB3	33:DL:21:ARG:NH2	2.23	0.53
33:DL:35:HIS:HB2	62:DL:3603:HOH:O	2.09	0.53
41:DT:55:VAL:HG22	41:DT:56:GLU:N	2.23	0.53
46:DY:28:LEU:CD2	46:DY:42:LEU:HD13	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D0:54:ILE:O	48:D0:55:ALA:HB2	2.08	0.53
1:AA:33:A:O2'	1:AA:363:A:H1'	2.08	0.53
1:AA:73:C:C2'	1:AA:74:A:H5''	2.38	0.53
1:AA:414:A:N3	1:AA:415:A:C8	2.77	0.53
1:AA:532:A:H4'	1:AA:533:A:OP2	2.08	0.53
1:AA:596:A:N3	1:AA:597:G:C8	2.77	0.53
1:AA:765:G:H2'	1:AA:812:G:N2	2.23	0.53
1:AA:1276:G:C5	1:AA:1277:C:C5	2.97	0.53
1:AA:1533:C:C3'	1:AA:1534:A:H5''	2.39	0.53
4:AD:61:ARG:NH2	4:AD:67:LEU:HA	2.24	0.53
6:AF:98:GLU:O	6:AF:99:ALA:HB3	2.08	0.53
8:AH:1:SER:C	8:AH:3:GLN:N	2.67	0.53
8:AH:63:LYS:C	8:AH:64:TYR:CD1	2.86	0.53
9:AI:90:ASP:OD2	9:AI:93:LEU:HG	2.09	0.53
18:AR:33:THR:CG2	18:AR:37:LYS:H	2.22	0.53
22:BA:273:G:N2	22:BA:365:U:C2	2.77	0.53
22:BA:478:A:N6	22:BA:480:A:N6	2.57	0.53
22:BA:845:A:H3'	22:BA:845:A:N3	2.24	0.53
22:BA:1084:A:C4	22:BA:1085:A:N7	2.77	0.53
22:BA:1411:U:H2'	22:BA:1412:U:O4'	2.09	0.53
22:BA:1560:G:O2'	22:BA:1561:C:H5'	2.08	0.53
22:BA:1936:A:H2	22:BA:1943:U:C4	2.27	0.53
22:BA:2014:A:H2'	22:BA:2015:A:C8	2.43	0.53
22:BA:2182:U:C2'	22:BA:2183:A:OP1	2.57	0.53
22:BA:2654:A:C4'	22:BA:2655:G:OP1	2.51	0.53
24:BC:219:VAL:HG12	24:BC:224:MET:CE	2.39	0.53
25:BD:53:GLY:HA3	25:BD:77:ARG:HB2	1.91	0.53
26:BE:83:VAL:O	26:BE:83:VAL:HG12	2.08	0.53
27:BF:60:SER:O	27:BF:61:GLY:C	2.52	0.53
27:BF:128:SER:HA	27:BF:154:THR:HA	1.89	0.53
29:BH:89:LYS:CG	29:BH:90:LEU:H	1.98	0.53
33:BL:77:ILE:N	33:BL:77:ILE:HD12	2.23	0.53
35:BN:58:ASP:O	35:BN:59:SER:HB3	2.09	0.53
45:BX:39:VAL:CG2	45:BX:42:GLU:HB2	2.36	0.53
53:CA:135:C:C2	56:CP:1:MET:HB2	2.44	0.53
53:CA:283:U:H2'	53:CA:284:C:C6	2.44	0.53
53:CA:348:G:H5''	53:CA:348:G:H8	1.74	0.53
53:CA:667:G:C2	53:CA:740:U:O2	2.62	0.53
53:CA:725:G:H2'	53:CA:726:C:C6	2.43	0.53
53:CA:992:U:O2'	53:CA:993:G:OP2	2.18	0.53
53:CA:1125:U:C5	10:CJ:40:ILE:HG21	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1146:A:C2	53:CA:1147:C:C2	2.96	0.53
5:CE:40:ASP:CG	5:CE:41:GLY:H	2.16	0.53
54:CG:84:TYR:CD2	54:CG:150:PHE:HD2	2.27	0.53
9:CI:51:LEU:CD1	9:CI:82:ILE:HG22	2.37	0.53
9:CI:59:LYS:HG2	9:CI:60:LEU:HG	1.91	0.53
12:CL:34:THR:HG22	12:CL:35:ARG:HE	1.74	0.53
12:CL:109:ARG:NH2	12:CL:116:TYR:HE2	2.06	0.53
21:CU:31:VAL:O	21:CU:32:ARG:C	2.52	0.53
22:DA:92:U:C2'	22:DA:93:G:O4'	2.56	0.53
22:DA:103:A:O2'	22:DA:104:A:C5'	2.56	0.53
22:DA:189:G:C2'	22:DA:190:A:O5'	2.56	0.53
22:DA:930:G:C2	22:DA:933:A:C2	2.96	0.53
22:DA:1040:A:C2	22:DA:1041:G:N9	2.77	0.53
22:DA:1515:A:H2'	22:DA:1516:G:O4'	2.09	0.53
22:DA:1666:G:C4'	32:DK:6:THR:HG23	2.39	0.53
22:DA:1746:A:H2'	22:DA:1747:U:C6	2.44	0.53
22:DA:1914:C:O2'	22:DA:1915:U:C5'	2.57	0.53
22:DA:2033:A:H4'	22:DA:2034:U:OP1	2.08	0.53
22:DA:2837:A:H61	22:DA:2882:A:N6	2.06	0.53
22:DA:2849:U:OP1	37:DP:92:ARG:NH1	2.42	0.53
57:DB:90:C:H5''	57:DB:90:C:C6	2.35	0.53
57:DB:111:U:O2'	57:DB:112:G:H8	1.90	0.53
26:DE:117:ARG:NH2	33:DL:2:ARG:HB3	2.24	0.53
28:DG:93:TYR:OH	28:DG:159:LYS:HE2	2.08	0.53
30:DI:132:ALA:HA	30:DI:137:LEU:HD12	1.90	0.53
31:DJ:36:LEU:HD21	31:DJ:122:LEU:HD13	1.89	0.53
32:DK:16:ALA:HB1	32:DK:45:GLU:HG3	1.91	0.53
32:DK:115:ILE:HG22	32:DK:116:ILE:N	2.24	0.53
35:DN:120:GLU:HA	35:DN:120:GLU:OE1	2.09	0.53
38:DQ:96:ASP:C	38:DQ:98:ALA:N	2.64	0.53
39:DR:19:THR:HA	39:DR:96:VAL:O	2.08	0.53
50:D2:25:LYS:HG2	50:D2:25:LYS:O	2.09	0.53
1:AA:152:A:N6	1:AA:170:U:C2	2.77	0.53
1:AA:269:C:H2'	1:AA:270:A:C8	2.44	0.53
1:AA:441:A:C2	1:AA:497:G:C6	2.97	0.53
1:AA:614:C:H2'	1:AA:615:G:O5'	2.09	0.53
1:AA:1055:A:C8	1:AA:1206:G:N2	2.77	0.53
1:AA:1073:U:O2'	1:AA:1074:G:H5'	2.08	0.53
1:AA:1298:U:H4'	1:AA:1299:A:O5'	2.09	0.53
1:AA:1363:A:C4	1:AA:1365:G:C6	2.97	0.53
4:AD:57:LYS:HB3	4:AD:199:ILE:HG13	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:78:ARG:HD2	7:AG:83:THR:HA	1.91	0.53
8:AH:63:LYS:C	8:AH:64:TYR:HD1	2.17	0.53
10:AJ:26:VAL:O	10:AJ:29:ALA:HB3	2.08	0.53
11:AK:107:THR:HG22	11:AK:108:ASN:CG	2.33	0.53
14:AN:20:PHE:O	14:AN:21:ALA:HB3	2.08	0.53
22:BA:139:U:C5	41:BT:1:MET:HG2	2.43	0.53
22:BA:165:A:H2'	22:BA:166:U:C6	2.44	0.53
22:BA:623:C:H2'	22:BA:624:C:H6	1.73	0.53
22:BA:1081:U:N3	22:BA:1082:U:C5	2.77	0.53
22:BA:1820:U:C2	24:BC:200:MET:HB2	2.44	0.53
22:BA:2019:A:H4'	38:BQ:33:VAL:HG21	1.90	0.53
22:BA:2570:G:C2'	22:BA:2571:U:H5'	2.39	0.53
25:BD:180:VAL:HG12	25:BD:181:ASP:N	2.23	0.53
27:BF:34:THR:CG2	27:BF:89:THR:HA	2.39	0.53
31:BJ:37:ARG:CA	31:BJ:118:MET:HE1	2.38	0.53
32:BK:2:ILE:HG21	32:BK:39:ILE:CD1	2.36	0.53
32:BK:18:ARG:HB2	32:BK:45:GLU:CG	2.38	0.53
32:BK:64:ARG:NH1	32:BK:101:GLY:HA3	2.24	0.53
34:BM:78:LEU:O	34:BM:80:VAL:N	2.42	0.53
37:BP:111:GLU:CD	37:BP:111:GLU:H	2.17	0.53
38:BQ:15:LYS:O	38:BQ:19:GLN:HG3	2.09	0.53
44:BW:50:VAL:O	44:BW:52:CYS:N	2.35	0.53
44:BW:51:GLY:CA	44:BW:59:PHE:CE2	2.85	0.53
45:BX:31:ASN:OD1	45:BX:33:HIS:NE2	2.42	0.53
49:B1:29:LYS:HD2	49:B1:31:GLU:CD	2.34	0.53
53:CA:506:G:C6	53:CA:507:C:C4	2.97	0.53
53:CA:696:A:C4	53:CA:697:U:C5	2.96	0.53
53:CA:1077:G:N2	53:CA:1080:A:OP2	2.42	0.53
53:CA:1092:A:H4'	54:CG:3:ARG:HH12	1.74	0.53
53:CA:1231:G:C5	53:CA:1232:U:C5	2.97	0.53
53:CA:1250:A:C6	53:CA:1251:A:C5	2.97	0.53
2:CB:90:PHE:CE2	2:CB:149:GLY:HA3	2.44	0.53
4:CD:18:LEU:HD22	4:CD:63:ILE:HG12	1.90	0.53
5:CE:15:ILE:HG21	5:CE:35:LEU:HD12	1.90	0.53
5:CE:103:GLY:HA3	5:CE:121:ASN:CA	2.36	0.53
54:CG:26:VAL:HG23	54:CG:27:ASN:OD1	2.09	0.53
54:CG:70:PRO:HD2	54:CG:95:ARG:O	2.09	0.53
9:CI:47:VAL:C	9:CI:50:PRO:HD2	2.34	0.53
12:CL:19:ASN:ND2	12:CL:19:ASN:H	2.06	0.53
12:CL:42:LYS:HD2	12:CL:43:LYS:HZ3	1.74	0.53
20:CT:34:VAL:CG1	20:CT:78:LEU:HD21	2.38	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:163:C:O2'	22:DA:164:C:C5'	2.56	0.53
22:DA:469:G:P	26:DE:55:SER:CB	2.96	0.53
22:DA:574:A:C2	22:DA:2032:G:O2'	2.62	0.53
22:DA:777:G:O2'	22:DA:778:G:H5'	2.09	0.53
22:DA:945:A:C8	22:DA:2448:A:C2	2.97	0.53
22:DA:1754:A:N6	22:DA:1755:A:C6	2.77	0.53
22:DA:1974:C:C2	22:DA:1975:G:C8	2.97	0.53
22:DA:2020:A:O2'	22:DA:2021:C:H3'	2.09	0.53
22:DA:2686:G:C5	22:DA:2687:U:C4	2.97	0.53
57:DB:40:U:N3	57:DB:43:C:OP2	2.42	0.53
24:DC:144:GLU:HG3	24:DC:151:GLY:N	2.24	0.53
24:DC:212:TRP:C	24:DC:212:TRP:CD1	2.87	0.53
58:DF:107:VAL:N	58:DF:108:PRO:HD2	2.23	0.53
29:DH:50:ARG:HH12	29:DH:53:GLU:HG3	1.74	0.53
33:DL:18:ARG:HB3	33:DL:21:ARG:HD2	1.91	0.53
34:DM:73:ILE:CG2	34:DM:91:TYR:CE1	2.92	0.53
34:DM:96:ILE:CD1	34:DM:102:LEU:HD11	2.38	0.53
35:DN:62:ASN:OD1	35:DN:62:ASN:N	2.43	0.53
36:DO:17:LYS:HE2	36:DO:21:LEU:HD11	1.90	0.53
37:DP:57:ALA:HA	37:DP:75:THR:HB	1.90	0.53
45:DX:36:ARG:HG2	45:DX:47:THR:HB	1.90	0.53
1:AA:186:C:O4'	20:AT:75:LYS:HD2	2.08	0.52
1:AA:619:U:N3	4:AD:130:ASN:HB3	2.11	0.52
1:AA:1203:C:H2'	1:AA:1204:A:H8	1.74	0.52
1:AA:1386:G:H2'	1:AA:1387:G:C8	2.42	0.52
2:AB:49:PHE:HB2	2:AB:53:LEU:CD2	2.39	0.52
22:BA:42:A:C2'	22:BA:43:G:H5''	2.39	0.52
22:BA:278:A:N3	22:BA:278:A:H2'	2.24	0.52
22:BA:1063:G:H2'	22:BA:1064:C:O4'	2.09	0.52
22:BA:1095:A:H2'	22:BA:1096:A:C8	2.44	0.52
22:BA:1347:A:C2'	22:BA:1348:C:C5'	2.86	0.52
22:BA:1348:C:H2'	22:BA:1349:C:C5'	2.39	0.52
22:BA:1499:C:H2'	22:BA:1500:G:H8	1.74	0.52
22:BA:1996:C:OP1	32:BK:31:ARG:NE	2.41	0.52
22:BA:2004:G:H2'	22:BA:2005:A:H5'	1.91	0.52
22:BA:2150:C:O2'	22:BA:2151:U:C6	2.53	0.52
22:BA:2365:G:O2'	22:BA:2366:A:C8	2.56	0.52
24:BC:106:PRO:CB	24:BC:141:HIS:HE1	2.23	0.52
24:BC:252:LYS:CA	24:BC:252:LYS:NZ	2.72	0.52
27:BF:47:LYS:NZ	27:BF:47:LYS:CB	2.72	0.52
28:BG:83:THR:O	28:BG:84:LYS:HD3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:56:VAL:O	31:BJ:124:VAL:O	2.27	0.52
35:BN:23:ASN:N	35:BN:23:ASN:ND2	2.55	0.52
36:BO:23:ALA:O	36:BO:24:THR:C	2.52	0.52
41:BT:24:MET:HE2	41:BT:27:SER:O	2.08	0.52
53:CA:71:A:N3	53:CA:72:A:C8	2.77	0.52
53:CA:173:U:C5'	53:CA:174:A:OP2	2.57	0.52
53:CA:404:G:C2'	53:CA:405:U:H5'	2.39	0.52
53:CA:495:A:C2	53:CA:496:A:C6	2.97	0.52
53:CA:644:U:H2'	53:CA:645:G:C8	2.44	0.52
53:CA:790:A:N6	53:CA:791:G:C6	2.77	0.52
53:CA:861:G:C6	53:CA:862:C:C4	2.96	0.52
53:CA:946:A:H2'	53:CA:947:G:C8	2.43	0.52
53:CA:1386:G:N2	53:CA:1387:G:C4	2.77	0.52
53:CA:1439:G:C2	53:CA:1463:U:O2	2.62	0.52
53:CA:1504:G:C3'	53:CA:1505:G:C5'	2.84	0.52
54:CG:78:ARG:HA	54:CG:84:TYR:HB2	1.92	0.52
11:CK:19:VAL:N	11:CK:34:THR:O	2.41	0.52
55:CM:18:LEU:HA	55:CM:21:ILE:CD1	2.38	0.52
55:CM:47:LEU:HD23	55:CM:48:SER:C	2.34	0.52
55:CM:81:ASP:CB	55:CM:82:LEU:HD12	2.38	0.52
56:CP:19:VAL:CG1	56:CP:37:GLY:HA3	2.39	0.52
20:CT:64:GLY:O	20:CT:67:HIS:HB2	2.09	0.52
22:DA:24:G:C2'	22:DA:25:U:H5'	2.38	0.52
22:DA:152:A:C2	22:DA:175:G:C2	2.97	0.52
22:DA:310:A:O2'	22:DA:311:A:H5''	2.10	0.52
22:DA:476:G:O2'	22:DA:477:A:H3'	2.09	0.52
22:DA:478:A:C6	22:DA:480:A:C5	2.97	0.52
22:DA:672:C:O2'	22:DA:673:C:C5'	2.53	0.52
22:DA:688:U:C2'	22:DA:689:A:H5'	2.38	0.52
22:DA:775:G:C2	22:DA:794:A:C8	2.96	0.52
22:DA:1351:C:H2'	22:DA:1352:U:O4'	2.09	0.52
22:DA:1655:A:C4'	25:DD:118:PHE:CD1	2.92	0.52
22:DA:1746:A:H2'	22:DA:1747:U:H6	1.74	0.52
22:DA:1820:U:OP1	24:DC:176:ARG:HB3	2.09	0.52
22:DA:2063:C:C2'	22:DA:2064:C:H5'	2.39	0.52
22:DA:2234:G:C5	22:DA:2235:G:N7	2.77	0.52
22:DA:2259:U:O4'	22:DA:2427:C:H2'	2.09	0.52
22:DA:2264:C:C2	22:DA:2277:G:N2	2.77	0.52
22:DA:2331:G:C2	22:DA:2385:C:N3	2.76	0.52
22:DA:2371:G:C2	22:DA:2372:U:C6	2.97	0.52
22:DA:2459:A:O2'	22:DA:2460:U:H5'	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2516:A:H2'	22:DA:2517:C:O4'	2.09	0.52
22:DA:2656:U:C5	22:DA:2664:G:N2	2.77	0.52
25:DD:106:LYS:HB3	25:DD:206:ALA:HB2	1.85	0.52
58:DF:11:VAL:HG12	58:DF:12:VAL:H	1.74	0.52
58:DF:65:LEU:HD11	58:DF:67:THR:HG22	1.91	0.52
28:DG:92:GLY:O	28:DG:93:TYR:C	2.52	0.52
34:DM:61:GLY:CA	34:DM:107:GLY:HA3	2.33	0.52
37:DP:19:PHE:HE1	37:DP:58:PHE:CE1	2.26	0.52
37:DP:26:GLU:OE1	37:DP:28:LYS:HE2	2.09	0.52
38:DQ:9:ALA:C	38:DQ:11:ALA:N	2.68	0.52
41:DT:29:THR:HB	41:DT:86:THR:CA	2.39	0.52
42:DU:3:LYS:HD3	42:DU:82:VAL:CG2	2.39	0.52
44:DW:37:VAL:O	44:DW:38:ARG:HB2	2.08	0.52
44:DW:49:ASN:OD1	44:DW:80:SER:HA	2.08	0.52
50:D2:24:THR:O	50:D2:24:THR:HG23	2.09	0.52
51:D3:33:THR:HG23	51:D3:34:LYS:N	2.23	0.52
1:AA:654:G:O2'	1:AA:655:A:C5'	2.54	0.52
1:AA:830:G:H2'	1:AA:831:A:C8	2.43	0.52
1:AA:924:C:H2'	1:AA:925:G:H8	1.74	0.52
1:AA:1112:C:C4	3:AC:177:LEU:CD2	2.93	0.52
1:AA:1141:C:HO2'	1:AA:1142:G:P	2.32	0.52
1:AA:1305:G:O2'	1:AA:1306:A:H8	1.91	0.52
1:AA:1365:G:O2'	1:AA:1366:C:H5'	2.09	0.52
8:AH:74:ILE:HD13	8:AH:128:VAL:HG13	1.91	0.52
10:AJ:71:LEU:O	10:AJ:72:ARG:HD3	2.09	0.52
11:AK:47:GLY:HA3	11:AK:52:ARG:HH11	1.73	0.52
12:AL:120:ARG:C	12:AL:122:LYS:H	2.16	0.52
22:BA:869:G:H2'	22:BA:870:U:O4'	2.09	0.52
22:BA:907:G:C2'	22:BA:908:C:H5'	2.39	0.52
22:BA:1075:C:C4	22:BA:1076:C:N4	2.77	0.52
22:BA:1091:G:HO2'	22:BA:1092:C:C5'	2.22	0.52
22:BA:1374:G:C4	22:BA:1375:U:C6	2.97	0.52
22:BA:1559:U:H3'	22:BA:1560:G:H5'	1.91	0.52
22:BA:1744:A:H3'	22:BA:1745:A:H8	1.74	0.52
22:BA:2573:C:H2'	62:BA:3704:HOH:O	2.09	0.52
25:BD:191:GLY:O	25:BD:192:ALA:CB	2.57	0.52
28:BG:26:LYS:HB3	28:BG:32:LEU:HG	1.90	0.52
29:BH:100:ALA:O	29:BH:101:ASP:C	2.52	0.52
31:BJ:17:VAL:HG13	31:BJ:55:ILE:CG1	2.40	0.52
33:BL:29:LYS:C	33:BL:31:GLY:H	2.17	0.52
33:BL:91:ASP:CB	33:BL:94:THR:HB	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BM:41:LEU:O	34:BM:93:VAL:CG2	2.57	0.52
34:BM:46:ILE:CD1	34:BM:47:GLU:N	2.69	0.52
38:BQ:40:LYS:HA	38:BQ:43:GLN:HG3	1.91	0.52
40:BS:68:ASP:O	40:BS:109:ASP:HB3	2.09	0.52
41:BT:23:ALA:C	41:BT:25:GLU:H	2.17	0.52
41:BT:39:THR:HG22	41:BT:39:THR:O	2.09	0.52
49:B1:49:LYS:HG2	49:B1:50:GLU:N	2.21	0.52
53:CA:557:G:C6	53:CA:558:G:N1	2.77	0.52
53:CA:676:A:H2'	53:CA:677:U:H6	1.73	0.52
53:CA:976:G:C5'	53:CA:977:A:OP2	2.56	0.52
53:CA:1046:A:C2'	53:CA:1047:G:C5'	2.86	0.52
53:CA:1453:G:N3	53:CA:1453:G:C2'	2.71	0.52
2:CB:9:LEU:HD12	2:CB:11:ALA:O	2.09	0.52
5:CE:112:ALA:O	5:CE:113:VAL:C	2.53	0.52
54:CG:12:LEU:HD22	54:CG:12:LEU:C	2.34	0.52
54:CG:65:LEU:O	54:CG:65:LEU:HD23	2.08	0.52
8:CH:26:MET:HB2	8:CH:27:PRO:HD2	1.91	0.52
21:CU:20:ARG:HH12	21:CU:24:LYS:HD3	1.74	0.52
22:DA:54:G:H2'	22:DA:55:G:O4'	2.09	0.52
22:DA:204:A:O4'	22:DA:206:U:C6	2.62	0.52
22:DA:508:A:H3'	22:DA:509:C:C5'	2.39	0.52
22:DA:1032:A:H1'	52:D4:23:ILE:CD1	2.27	0.52
22:DA:1108:U:H2'	22:DA:1109:C:O4'	2.09	0.52
22:DA:1264:A:H1'	22:DA:2015:A:N6	2.24	0.52
22:DA:1378:A:O2'	22:DA:1379:U:H3'	2.10	0.52
22:DA:1429:G:N3	22:DA:1430:G:N7	2.56	0.52
22:DA:1461:C:H2'	22:DA:1462:C:C6	2.44	0.52
22:DA:1798:U:C4	22:DA:1819:A:C2	2.97	0.52
22:DA:1865:U:O4	22:DA:1875:G:N3	2.42	0.52
22:DA:1914:C:O2'	22:DA:1915:U:O4'	2.26	0.52
22:DA:2353:G:H21	44:DW:30:VAL:CG2	2.22	0.52
22:DA:2361:G:OP1	51:D3:25:HIS:HA	2.08	0.52
22:DA:2388:A:H5'	22:DA:2389:G:OP2	2.08	0.52
22:DA:2489:U:H2'	22:DA:2490:G:O4'	2.08	0.52
22:DA:2616:C:O2'	22:DA:2617:U:O4'	2.27	0.52
57:DB:26:C:H1'	57:DB:117:G:C1'	2.39	0.52
57:DB:42:C:H2'	57:DB:43:C:C5	2.43	0.52
57:DB:57:A:C2'	57:DB:58:A:H8	2.23	0.52
57:DB:78:A:H2'	57:DB:79:G:H8	1.72	0.52
24:DC:86:ARG:HB3	24:DC:86:ARG:NH1	2.24	0.52
24:DC:146:LYS:HB2	24:DC:149:LYS:CB	2.30	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:105:LYS:HA	25:DD:177:VAL:CG2	2.39	0.52
32:DK:18:ARG:HB2	32:DK:45:GLU:HB2	1.91	0.52
32:DK:60:ALA:CB	32:DK:86:LEU:HA	2.38	0.52
33:DL:99:ASN:O	33:DL:100:ILE:HB	2.10	0.52
35:DN:19:ALA:HA	35:DN:22:ARG:HB3	1.90	0.52
36:DO:8:ILE:H	36:DO:8:ILE:HD12	1.74	0.52
37:DP:47:ILE:HD13	37:DP:61:ARG:HB2	1.90	0.52
39:DR:19:THR:HG22	39:DR:20:VAL:H	1.74	0.52
44:DW:16:GLU:OE2	44:DW:16:GLU:CA	2.57	0.52
1:AA:582:C:C2	1:AA:583:A:C8	2.98	0.52
1:AA:1112:C:H1'	3:AC:178:ARG:HD3	1.90	0.52
1:AA:1167:A:N7	1:AA:1169:A:N6	2.58	0.52
1:AA:1453:G:N3	1:AA:1453:G:H2'	2.23	0.52
2:AB:27:LYS:C	2:AB:29:PHE:H	2.17	0.52
2:AB:103:TRP:HE1	2:AB:150:ILE:CD1	2.22	0.52
3:AC:5:HIS:O	3:AC:9:ILE:HG22	2.10	0.52
5:AE:103:GLY:O	5:AE:104:ILE:HG22	2.09	0.52
5:AE:110:MET:HE3	5:AE:139:THR:CG2	2.38	0.52
6:AF:19:PRO:HG2	6:AF:20:GLY:H	1.74	0.52
8:AH:12:ARG:NH1	8:AH:26:MET:HB2	2.22	0.52
8:AH:74:ILE:HG23	8:AH:74:ILE:O	2.09	0.52
15:AO:2:LEU:HD22	15:AO:34:GLN:HG2	1.90	0.52
16:AP:51:ARG:O	16:AP:52:LEU:HD12	2.09	0.52
22:BA:27:G:N2	22:BA:512:G:O2'	2.37	0.52
22:BA:226:A:N6	22:BA:227:A:C6	2.77	0.52
22:BA:721:A:H2'	22:BA:722:A:C8	2.44	0.52
22:BA:958:U:C5'	34:BM:14:LYS:NZ	2.73	0.52
22:BA:1001:A:H2'	22:BA:1002:G:O4'	2.10	0.52
22:BA:1019:U:O4	22:BA:1020:A:N6	2.42	0.52
22:BA:1434:A:OP1	22:BA:1434:A:H4'	2.09	0.52
22:BA:1541:C:C2'	22:BA:1542:U:H5'	2.38	0.52
22:BA:1869:G:H8	22:BA:1869:G:OP2	1.92	0.52
22:BA:2236:U:O2'	22:BA:2237:G:H5'	2.09	0.52
22:BA:2630:G:H2'	22:BA:2631:G:H8	1.74	0.52
22:BA:2636:C:H2'	22:BA:2637:U:C6	2.44	0.52
23:BB:16:G:C5	23:BB:69:G:C2	2.97	0.52
24:BC:54:GLY:O	24:BC:214:GLY:HA2	2.10	0.52
24:BC:154:ALA:HB2	24:BC:161:VAL:HG23	1.92	0.52
27:BF:146:ASP:O	27:BF:147:ARG:HB2	2.09	0.52
30:BI:105:LEU:HD23	30:BI:108:ILE:HG21	1.91	0.52
31:BJ:54:ILE:HD11	31:BJ:56:VAL:HG23	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:32:GLU:HA	35:BN:115:LEU:HD12	1.90	0.52
37:BP:85:VAL:HG13	37:BP:86:LYS:N	2.23	0.52
39:BR:67:GLY:HA3	39:BR:93:PHE:CZ	2.44	0.52
42:BU:48:VAL:O	42:BU:53:GLN:HB3	2.09	0.52
44:BW:22:VAL:HG13	44:BW:25:PHE:HE2	1.72	0.52
48:B0:22:THR:HG22	48:B0:23:ALA:O	2.09	0.52
52:B4:10:LEU:HD12	52:B4:33:HIS:CB	2.39	0.52
53:CA:967:C:N3	53:CA:968:A:N6	2.57	0.52
53:CA:1300:G:H22	53:CA:1334:G:H2'	1.73	0.52
3:CC:10:ARG:NH2	3:CC:181:ILE:HB	2.23	0.52
3:CC:35:ASP:OD1	3:CC:56:ILE:HG21	2.09	0.52
6:CF:68:GLN:O	6:CF:71:ILE:HG22	2.08	0.52
54:CG:22:LEU:HD23	54:CG:22:LEU:O	2.09	0.52
54:CG:59:GLU:C	54:CG:61:PHE:H	2.18	0.52
10:CJ:5:ARG:HH21	10:CJ:77:VAL:HG13	1.73	0.52
11:CK:124:LYS:O	21:CU:34:ARG:HB2	2.08	0.52
12:CL:2:THR:CB	12:CL:5:GLN:HB2	2.38	0.52
12:CL:4:ASN:ND2	17:CQ:35:LYS:HE3	2.25	0.52
22:DA:58:G:N2	22:DA:59:U:H1'	2.24	0.52
22:DA:60:G:O2'	22:DA:61:C:OP1	2.27	0.52
22:DA:95:A:O2'	46:DY:41:HIS:HD2	1.93	0.52
22:DA:196:A:H61	22:DA:831:G:N2	2.04	0.52
22:DA:379:G:C5	22:DA:396:G:C6	2.97	0.52
22:DA:527:C:N3	22:DA:2779:U:H2'	2.25	0.52
22:DA:604:G:O2'	22:DA:605:G:C8	2.58	0.52
22:DA:607:U:H5	22:DA:619:G:C4	2.28	0.52
22:DA:632:A:H4'	33:DL:68:SER:HA	1.91	0.52
22:DA:647:G:C5	22:DA:648:G:N7	2.77	0.52
22:DA:811:U:C4	33:DL:21:ARG:NH1	2.77	0.52
22:DA:822:G:H5''	62:DA:3360:HOH:O	2.08	0.52
22:DA:860:U:O2'	22:DA:861:A:C5'	2.57	0.52
22:DA:1027:A:N7	22:DA:1126:A:C2	2.77	0.52
22:DA:1059:G:N1	22:DA:1088:A:C2	2.78	0.52
22:DA:1125:G:C6	22:DA:1126:A:N6	2.78	0.52
22:DA:1275:A:N3	22:DA:1275:A:O2'	2.36	0.52
22:DA:1555:G:C2	22:DA:1556:C:C2	2.97	0.52
22:DA:1612:C:C2'	22:DA:1613:G:O5'	2.57	0.52
22:DA:1613:G:H2'	22:DA:1617:C:H42	1.74	0.52
22:DA:1634:A:H4'	22:DA:1635:A:OP1	2.09	0.52
22:DA:1652:A:H3'	22:DA:1653:G:C8	2.44	0.52
22:DA:1862:G:C2	22:DA:1881:C:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1867:G:O6	22:DA:1875:G:N2	2.41	0.52
22:DA:2199:A:N6	22:DA:2225:A:C8	2.78	0.52
22:DA:2271:G:O2'	22:DA:2272:U:H5'	2.08	0.52
22:DA:2372:U:H1'	49:D1:45:HIS:CE1	2.44	0.52
22:DA:2726:A:O2'	22:DA:2727:A:C5'	2.57	0.52
22:DA:2834:G:C4	22:DA:2879:A:N6	2.77	0.52
57:DB:50:A:N3	57:DB:51:G:H1'	2.24	0.52
57:DB:69:G:C2'	57:DB:70:C:H5'	2.39	0.52
57:DB:109:A:C5	57:DB:110:C:C4	2.96	0.52
24:DC:93:VAL:HG12	24:DC:101:ARG:H	1.73	0.52
58:DF:48:LEU:O	58:DF:52:ALA:CB	2.58	0.52
28:DG:59:ASP:O	28:DG:63:GLN:HB2	2.09	0.52
29:DH:89:LYS:HD2	29:DH:124:THR:HA	1.91	0.52
31:DJ:45:THR:O	31:DJ:45:THR:HG23	2.08	0.52
31:DJ:55:ILE:O	31:DJ:55:ILE:HG13	2.08	0.52
31:DJ:74:TYR:OH	31:DJ:100:VAL:HG13	2.09	0.52
32:DK:16:ALA:HB3	32:DK:46:ALA:N	2.24	0.52
36:DO:24:THR:OG1	36:DO:90:VAL:HG11	2.10	0.52
38:DQ:4:LYS:HZ2	38:DQ:6:GLY:CA	2.17	0.52
47:DZ:15:ARG:HD2	47:DZ:15:ARG:N	2.23	0.52
1:AA:80:A:C2	1:AA:90:C:N3	2.77	0.52
1:AA:214:C:H2'	1:AA:215:C:H6	1.74	0.52
1:AA:376:G:H2'	1:AA:377:G:H8	1.74	0.52
1:AA:612:C:O2'	1:AA:613:C:H5'	2.09	0.52
1:AA:749:A:H2'	1:AA:750:C:H6	1.74	0.52
1:AA:785:G:O2'	1:AA:786:G:H5'	2.10	0.52
1:AA:1241:G:O2'	1:AA:1242:G:H8	1.92	0.52
3:AC:164:THR:O	3:AC:165:GLU:C	2.52	0.52
3:AC:166:TRP:N	3:AC:166:TRP:CE3	2.70	0.52
9:AI:50:PRO:HB3	9:AI:83:THR:HG22	1.91	0.52
10:AJ:65:TYR:HB2	14:AN:95:LEU:HD11	1.90	0.52
16:AP:20:VAL:HG23	16:AP:34:GLU:O	2.10	0.52
22:BA:114:U:H2'	22:BA:115:C:H6	1.72	0.52
22:BA:421:C:O2'	22:BA:422:A:OP2	2.25	0.52
22:BA:679:C:O2'	22:BA:680:C:H5'	2.10	0.52
22:BA:855:G:H21	44:BW:23:LYS:CG	2.08	0.52
22:BA:855:G:C1'	44:BW:23:LYS:HD3	2.38	0.52
22:BA:1057:A:C2	22:BA:1082:U:C2	2.97	0.52
22:BA:1151:A:H5''	22:BA:1151:A:H8	1.74	0.52
22:BA:1246:A:H2'	22:BA:1247:A:O5'	2.09	0.52
22:BA:1296:G:O2'	22:BA:1297:C:H5'	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1328:A:H2'	22:BA:1330:C:C4	2.44	0.52
22:BA:1747:U:H2'	22:BA:1748:C:H6	1.74	0.52
22:BA:2694:G:H2'	22:BA:2695:U:O4'	2.10	0.52
22:BA:2851:A:H2'	22:BA:2852:G:O4'	2.10	0.52
62:BA:3772:HOH:O	31:BJ:39:LYS:HE2	2.09	0.52
24:BC:170:TYR:CE2	24:BC:184:GLU:HA	2.44	0.52
24:BC:259:ASN:C	24:BC:261:ARG:N	2.64	0.52
25:BD:70:LYS:O	25:BD:71:ALA:CB	2.57	0.52
26:BE:52:VAL:O	26:BE:74:LYS:HE2	2.10	0.52
29:BH:97:ARG:HG2	29:BH:111:ALA:HB1	1.92	0.52
30:BI:78:LEU:HD23	30:BI:81:LYS:HE3	1.90	0.52
30:BI:86:LYS:HD2	30:BI:86:LYS:H	1.74	0.52
30:BI:126:ARG:HA	30:BI:129:GLU:CD	2.35	0.52
32:BK:76:VAL:HB	37:BP:72:VAL:HG21	1.89	0.52
34:BM:6:ARG:CZ	34:BM:6:ARG:CB	2.87	0.52
35:BN:36:THR:HG23	35:BN:37:THR:N	2.24	0.52
35:BN:77:ALA:O	35:BN:81:ASN:HB2	2.09	0.52
37:BP:30:TRP:CZ3	37:BP:39:LEU:HD12	2.45	0.52
38:BQ:8:ILE:C	38:BQ:8:ILE:CD1	2.70	0.52
44:BW:28:GLU:HB3	44:BW:31:LEU:CG	2.39	0.52
44:BW:37:VAL:HG13	44:BW:56:HIS:HB2	1.91	0.52
45:BX:30:PRO:CB	45:BX:32:LEU:HD11	2.39	0.52
53:CA:97:G:C5	53:CA:98:A:H1'	2.44	0.52
53:CA:127:G:N2	53:CA:235:C:C2	2.77	0.52
53:CA:160:A:H1'	53:CA:344:A:C5	2.45	0.52
53:CA:247:G:C6	53:CA:278:G:C2	2.97	0.52
53:CA:429:U:H1'	53:CA:430:A:C5'	2.39	0.52
53:CA:513:C:O2'	53:CA:514:C:P	2.67	0.52
53:CA:764:C:C4	53:CA:812:G:O6	2.63	0.52
53:CA:1278:G:H5'	53:CA:1279:G:H5'	1.90	0.52
2:CB:83:ALA:O	2:CB:85:SER:N	2.42	0.52
3:CC:5:HIS:CD2	3:CC:183:TYR:HE2	2.27	0.52
4:CD:61:ARG:HH21	4:CD:67:LEU:HA	1.74	0.52
4:CD:190:LEU:HD23	4:CD:190:LEU:C	2.34	0.52
8:CH:93:LYS:N	8:CH:93:LYS:CD	2.59	0.52
9:CI:80:HIS:O	9:CI:83:THR:HG23	2.09	0.52
11:CK:104:PHE:HD1	11:CK:104:PHE:H	1.55	0.52
14:CN:30:ILE:O	14:CN:45:LEU:HD11	2.09	0.52
56:CP:44:SER:HB2	56:CP:46:LYS:CG	2.40	0.52
56:CP:73:ALA:HA	56:CP:76:LYS:HB2	1.92	0.52
17:CQ:22:VAL:HG21	17:CQ:58:VAL:HG21	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CS:38:THR:N	19:CS:69:LYS:HD3	2.24	0.52
21:CU:16:ARG:HD2	21:CU:19:LYS:HE2	1.90	0.52
22:DA:154:U:H2'	22:DA:155:A:O4'	2.10	0.52
22:DA:204:A:O2'	22:DA:205:G:O5'	2.24	0.52
22:DA:295:G:N3	22:DA:295:G:H2'	2.23	0.52
22:DA:425:G:H2'	22:DA:426:C:C6	2.43	0.52
22:DA:453:A:N3	22:DA:457:A:O2'	2.42	0.52
22:DA:749:A:H2'	22:DA:750:A:H8	1.74	0.52
22:DA:855:G:N3	44:DW:23:LYS:HG2	2.25	0.52
22:DA:1070:A:H61	30:DI:8:VAL:CG1	2.22	0.52
22:DA:1116:G:N2	22:DA:1117:C:C6	2.75	0.52
22:DA:1906:G:OP2	22:DA:1929:G:O2'	2.26	0.52
22:DA:1954:G:O2'	22:DA:1956:U:C5	2.62	0.52
22:DA:2259:U:C5	22:DA:2427:C:N4	2.78	0.52
22:DA:2478:A:N7	22:DA:2529:G:C6	2.78	0.52
22:DA:2726:A:HO2'	32:DK:67:LYS:HZ3	1.57	0.52
22:DA:2733:A:O2'	22:DA:2734:A:H5'	2.08	0.52
57:DB:108:A:HO2'	57:DB:109:A:P	2.32	0.52
24:DC:44:ASN:C	24:DC:46:GLY:N	2.65	0.52
24:DC:56:GLY:HA3	24:DC:213:ARG:O	2.09	0.52
26:DE:5:LEU:HD13	26:DE:122:GLU:CB	2.40	0.52
26:DE:196:VAL:O	26:DE:196:VAL:HG12	2.10	0.52
58:DF:28:PRO:HB2	58:DF:168:LEU:CG	2.40	0.52
28:DG:68:ARG:C	28:DG:68:ARG:HD3	2.34	0.52
28:DG:86:LEU:HA	28:DG:163:TYR:CB	2.35	0.52
29:DH:27:ARG:HH11	45:DX:59:ASP:HA	1.74	0.52
30:DI:95:ASP:CG	30:DI:96:LYS:H	2.17	0.52
31:DJ:25:LEU:HD22	31:DJ:26:GLY:N	2.23	0.52
31:DJ:95:ARG:O	31:DJ:96:ARG:C	2.52	0.52
36:DO:53:THR:HB	36:DO:65:THR:CG2	2.33	0.52
1:AA:373:A:C2	1:AA:374:A:C8	2.97	0.52
1:AA:536:C:H2'	1:AA:537:G:H8	1.74	0.52
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.45	0.52
8:AH:88:LYS:CG	8:AH:89:ASP:H	2.23	0.52
9:AI:8:THR:N	9:AI:84:ARG:HH12	2.06	0.52
11:AK:17:ASP:HA	11:AK:80:ASN:O	2.09	0.52
13:AM:22:TYR:CE2	13:AM:69:ARG:HG2	2.45	0.52
16:AP:80:LYS:HB2	16:AP:80:LYS:NZ	2.25	0.52
19:AS:80:ARG:O	19:AS:80:ARG:HG3	2.08	0.52
21:AU:49:ALA:O	21:AU:52:VAL:HG12	2.10	0.52
22:BA:289:G:H2'	22:BA:290:U:C6	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:449:A:C2'	22:BA:450:G:H5'	2.39	0.52
22:BA:900:A:O2'	22:BA:901:C:H5'	1.97	0.52
22:BA:1085:A:C2	22:BA:1086:A:C8	2.98	0.52
22:BA:1450:G:C5	22:BA:1451:C:N4	2.78	0.52
22:BA:1542:U:O2'	22:BA:1543:G:H5'	2.10	0.52
22:BA:1588:G:N3	22:BA:1589:U:C6	2.77	0.52
22:BA:2315:G:H2'	22:BA:2316:G:H8	1.75	0.52
22:BA:2353:G:H1'	44:BW:30:VAL:CG1	2.40	0.52
22:BA:2874:C:O2'	22:BA:2875:C:H5'	2.10	0.52
24:BC:161:VAL:HG11	24:BC:173:LEU:HG	1.92	0.52
28:BG:25:ILE:O	28:BG:78:VAL:HG11	2.10	0.52
30:BI:75:ALA:HB3	30:BI:131:THR:HG21	1.91	0.52
30:BI:107:GLU:O	30:BI:111:THR:HG23	2.10	0.52
31:BJ:111:LYS:HD3	31:BJ:112:GLY:CA	2.35	0.52
31:BJ:114:LEU:HD23	31:BJ:114:LEU:C	2.34	0.52
34:BM:6:ARG:CZ	34:BM:6:ARG:HB2	2.39	0.52
34:BM:80:VAL:HG22	34:BM:81:ARG:O	2.09	0.52
37:BP:37:LYS:N	37:BP:37:LYS:CD	2.73	0.52
40:BS:82:MET:HB2	40:BS:98:LYS:HB2	1.91	0.52
41:BT:31:VAL:CA	41:BT:83:ALA:HB3	2.38	0.52
47:BZ:35:VAL:CG2	47:BZ:36:GLU:N	2.72	0.52
53:CA:112:G:H2'	53:CA:113:G:H5'	1.92	0.52
53:CA:360:G:H8	53:CA:360:G:O5'	1.93	0.52
53:CA:529:G:O6	12:CL:45:ASN:HA	2.09	0.52
53:CA:647:C:H2'	53:CA:648:A:H8	1.74	0.52
53:CA:1255:G:N1	53:CA:1279:G:N7	2.57	0.52
11:CK:19:VAL:HG12	11:CK:34:THR:HG23	1.92	0.52
11:CK:44:ALA:HB3	11:CK:69:CYS:CB	2.24	0.52
14:CN:16:ALA:HA	14:CN:20:PHE:HD1	1.73	0.52
56:CP:78:VAL:HG12	56:CP:78:VAL:O	2.09	0.52
22:DA:142:A:C4	22:DA:143:C:C5	2.98	0.52
22:DA:272:A:C2	22:DA:273:G:C5	2.97	0.52
22:DA:524:G:H2'	22:DA:525:U:C6	2.44	0.52
22:DA:594:U:H2'	22:DA:595:C:H6	1.71	0.52
22:DA:659:G:H4'	26:DE:95:LYS:HD3	1.92	0.52
22:DA:704:G:O2'	22:DA:705:A:C8	2.62	0.52
22:DA:726:G:OP2	22:DA:726:G:C8	2.63	0.52
22:DA:1090:A:C2'	22:DA:1091:G:H5''	2.40	0.52
22:DA:1139:G:N3	22:DA:1143:A:H2	2.08	0.52
22:DA:1197:G:H5'	22:DA:1227:G:O2'	2.08	0.52
22:DA:1308:A:N6	22:DA:1309:G:C2	2.77	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1390:U:C2'	22:DA:1391:U:H5'	2.39	0.52
22:DA:1706:C:O2'	22:DA:1707:G:OP1	2.27	0.52
22:DA:1805:A:O2'	24:DC:49:THR:HA	2.09	0.52
22:DA:1929:G:H5'	22:DA:1930:G:OP1	2.09	0.52
22:DA:2523:G:C2'	22:DA:2524:G:H5'	2.40	0.52
22:DA:2757:A:O2'	22:DA:2758:A:H5'	2.10	0.52
22:DA:2881:U:H2'	22:DA:2882:A:H8	1.74	0.52
57:DB:69:G:N9	57:DB:70:C:C5	2.77	0.52
58:DF:41:GLU:O	58:DF:43:ILE:N	2.42	0.52
58:DF:76:PHE:CD2	58:DF:76:PHE:N	2.74	0.52
29:DH:68:ARG:CD	29:DH:68:ARG:O	2.58	0.52
38:DQ:77:LYS:HE3	38:DQ:116:LEU:HD11	1.92	0.52
39:DR:38:VAL:HG21	39:DR:41:ILE:CD1	2.40	0.52
42:DU:12:VAL:HG12	42:DU:12:VAL:O	2.08	0.52
47:DZ:4:ILE:HG21	47:DZ:56:VAL:CG1	2.39	0.52
50:D2:41:ARG:HB3	50:D2:44:VAL:HG13	1.91	0.52
1:AA:89:U:N3	1:AA:90:C:C5	2.78	0.52
1:AA:1314:C:C6	19:AS:5:LYS:HD3	2.45	0.52
1:AA:1368:A:O2'	1:AA:1369:C:H5'	2.10	0.52
2:AB:218:ALA:HA	2:AB:221:ARG:NH2	2.20	0.52
4:AD:68:GLU:O	4:AD:72:ARG:HG2	2.10	0.52
7:AG:15:PRO:HG2	7:AG:43:TYR:OH	2.09	0.52
13:AM:6:ILE:HD12	13:AM:6:ILE:N	2.25	0.52
16:AP:37:GLY:HA2	16:AP:51:ARG:NH1	2.25	0.52
17:AQ:28:VAL:O	17:AQ:36:PHE:HA	2.10	0.52
17:AQ:71:SER:C	17:AQ:72:TRP:CD1	2.88	0.52
19:AS:62:THR:CG2	19:AS:63:ASP:N	2.73	0.52
20:AT:14:GLU:HA	20:AT:17:ARG:HB2	1.92	0.52
22:BA:143:C:O2'	22:BA:144:A:H8	1.92	0.52
22:BA:301:G:O2'	22:BA:302:C:C5'	2.58	0.52
22:BA:580:U:N3	22:BA:581:C:C5	2.78	0.52
22:BA:729:G:C4	22:BA:1775:U:O2	2.62	0.52
22:BA:900:A:O2'	22:BA:901:C:H5''	2.09	0.52
22:BA:1062:G:HO2'	22:BA:1063:G:H8	1.56	0.52
22:BA:1157:G:O2'	47:BZ:31:ILE:CD1	2.50	0.52
22:BA:1317:G:C2	22:BA:1336:A:C2	2.98	0.52
22:BA:1615:C:C6	22:BA:1617:C:C5	2.98	0.52
22:BA:1725:U:H2'	22:BA:1726:C:O4'	2.10	0.52
22:BA:1735:A:C2	22:BA:1736:U:C2	2.98	0.52
22:BA:2093:G:O2'	22:BA:2094:A:C5'	2.54	0.52
22:BA:2674:G:H4'	32:BK:30:ARG:HG3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2793:C:H2'	22:BA:2794:C:H6	1.74	0.52
23:BB:35:C:H2'	23:BB:36:C:O4'	2.10	0.52
24:BC:12:ARG:HG2	24:BC:12:ARG:NH1	2.09	0.52
24:BC:182:LYS:C	24:BC:183:VAL:HG23	2.35	0.52
24:BC:250:GLN:N	24:BC:250:GLN:NE2	2.57	0.52
25:BD:118:PHE:HD2	25:BD:119:ALA:H	1.55	0.52
26:BE:150:THR:HA	26:BE:189:THR:HG23	1.92	0.52
37:BP:92:ARG:HH11	37:BP:92:ARG:CB	2.22	0.52
38:BQ:63:ARG:NH2	38:BQ:93:ILE:O	2.43	0.52
41:BT:57:VAL:CG2	41:BT:58:VAL:N	2.73	0.52
52:B4:8:LYS:O	52:B4:35:GLN:NE2	2.43	0.52
52:B4:30:GLU:HB3	52:B4:33:HIS:CE1	2.45	0.52
53:CA:91:U:C4	53:CA:92:U:O4	2.63	0.52
53:CA:369:G:O2'	53:CA:370:C:C5'	2.57	0.52
53:CA:505:G:C6	53:CA:535:A:C2	2.97	0.52
53:CA:595:A:C4'	53:CA:596:A:OP1	2.57	0.52
53:CA:1070:U:O2'	53:CA:1071:C:H5'	2.09	0.52
53:CA:1072:G:C5	53:CA:1073:U:C5	2.97	0.52
53:CA:1086:U:O2'	53:CA:1087:G:C5'	2.53	0.52
53:CA:1406:U:C2'	53:CA:1407:C:H5'	2.39	0.52
5:CE:131:ASN:O	5:CE:135:VAL:HG23	2.09	0.52
5:CE:132:PRO:C	5:CE:134:ASN:H	2.17	0.52
54:CG:41:ILE:HG22	54:CG:41:ILE:O	2.10	0.52
17:CQ:62:GLU:HB2	17:CQ:72:TRP:CH2	2.44	0.52
22:DA:84:A:C4	22:DA:99:U:H1'	2.45	0.52
22:DA:118:A:O5'	22:DA:119:A:H5''	2.09	0.52
22:DA:332:A:C8	22:DA:335:C:N4	2.77	0.52
22:DA:466:A:P	50:D2:34:ARG:HH21	2.33	0.52
22:DA:628:G:O2'	22:DA:629:G:H8	1.92	0.52
22:DA:927:A:C6	22:DA:928:A:C6	2.98	0.52
22:DA:966:G:H5'	22:DA:2272:U:O2	2.10	0.52
22:DA:1210:G:H5''	22:DA:1211:C:H3'	1.92	0.52
22:DA:1437:C:C2	22:DA:1438:U:C5	2.98	0.52
22:DA:1613:G:H3'	22:DA:1614:A:C5'	2.39	0.52
22:DA:1649:G:H2'	22:DA:1650:A:H8	1.75	0.52
22:DA:1663:G:C2	22:DA:1998:A:C5	2.98	0.52
22:DA:1717:A:C2'	22:DA:1718:G:O4'	2.56	0.52
22:DA:1735:A:HO2'	22:DA:1736:U:H6	1.56	0.52
22:DA:2068:U:H6	22:DA:2068:U:C5'	2.20	0.52
22:DA:2080:A:H4'	45:DX:22:ASN:HD22	1.75	0.52
22:DA:2305:U:OP1	58:DF:132:ARG:HG3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2425:A:H1'	22:DA:2427:C:C4	2.45	0.52
22:DA:2516:A:O2'	22:DA:2517:C:H5'	2.10	0.52
22:DA:2531:A:H5'	28:DG:156:TYR:CZ	2.44	0.52
22:DA:2566:A:O2'	22:DA:2567:G:P	2.67	0.52
22:DA:2874:C:O2'	22:DA:2875:C:H6	1.92	0.52
57:DB:27:C:H2'	57:DB:28:C:H6	1.74	0.52
25:DD:16:THR:HG21	25:DD:20:VAL:HB	1.91	0.52
58:DF:58:ALA:HB1	58:DF:139:GLU:CG	2.40	0.52
28:DG:25:ILE:CG2	28:DG:78:VAL:HG21	2.39	0.52
30:DI:30:GLN:HG3	30:DI:31:GLY:H	1.75	0.52
30:DI:61:TYR:HE2	30:DI:67:THR:H	1.57	0.52
31:DJ:37:ARG:HG3	31:DJ:118:MET:SD	2.49	0.52
31:DJ:123:LYS:HG2	31:DJ:132:HIS:NE2	2.24	0.52
32:DK:34:GLY:O	32:DK:35:VAL:CG2	2.58	0.52
34:DM:32:GLY:C	34:DM:117:PHE:HE2	2.17	0.52
35:DN:14:SER:O	35:DN:16:HIS:N	2.42	0.52
39:DR:23:GLU:O	39:DR:25:LEU:HD22	2.09	0.52
42:DU:32:LYS:HE2	42:DU:65:GLN:OE1	2.10	0.52
44:DW:77:LYS:O	44:DW:78:PHE:CB	2.58	0.52
45:DX:19:HIS:O	45:DX:20:ALA:HB3	2.09	0.52
1:AA:184:G:H2'	1:AA:185:U:H5	1.73	0.52
1:AA:420:U:O2'	1:AA:421:U:H5''	2.10	0.52
1:AA:602:A:O2'	1:AA:603:U:H5'	2.10	0.52
1:AA:749:A:H2	15:AO:21:THR:CG2	2.22	0.52
1:AA:827:U:C4	1:AA:870:U:C2	2.98	0.52
1:AA:974:A:C4'	1:AA:975:A:H5'	2.30	0.52
1:AA:1049:U:H1'	1:AA:1201:A:N7	2.23	0.52
1:AA:1071:C:H2'	1:AA:1072:G:H8	1.72	0.52
1:AA:1113:C:H2'	1:AA:1114:C:H6	1.75	0.52
3:AC:156:LEU:HD13	3:AC:163:ARG:HB2	1.91	0.52
4:AD:25:ARG:O	4:AD:26:ALA:CB	2.58	0.52
5:AE:96:GLN:HE21	5:AE:96:GLN:HA	1.75	0.52
5:AE:121:ASN:ND2	5:AE:122:VAL:HG13	2.24	0.52
5:AE:152:VAL:O	5:AE:155:LYS:HD2	2.09	0.52
6:AF:20:GLY:O	6:AF:23:GLU:HB3	2.09	0.52
6:AF:39:LEU:C	6:AF:40:GLU:HG2	2.34	0.52
8:AH:17:GLN:CD	8:AH:69:ALA:HB1	2.35	0.52
11:AK:124:LYS:HE2	21:AU:33:ARG:HH21	1.72	0.52
14:AN:25:GLU:CG	14:AN:26:LEU:HD12	2.40	0.52
17:AQ:15:LYS:O	17:AQ:16:MET:SD	2.68	0.52
21:AU:7:GLU:CB	21:AU:11:PHE:CE1	2.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:28:A:H2'	22:BA:29:U:H6	1.74	0.52
22:BA:41:C:H2'	22:BA:42:A:O5'	2.10	0.52
22:BA:320:A:O2'	22:BA:322:A:H8	1.93	0.52
22:BA:459:U:H2'	22:BA:460:A:C8	2.44	0.52
22:BA:825:A:H2'	22:BA:826:U:O5'	2.09	0.52
22:BA:986:C:O2'	22:BA:987:C:H5'	2.10	0.52
22:BA:1050:A:N1	22:BA:2751:G:C5	2.77	0.52
22:BA:1794:A:O2'	22:BA:1795:C:H5'	2.10	0.52
22:BA:2416:C:H2'	22:BA:2417:C:C6	2.41	0.52
22:BA:2571:U:O2'	25:BD:151:THR:HG21	2.09	0.52
24:BC:61:TYR:HA	24:BC:85:ASN:HD21	1.75	0.52
24:BC:78:GLU:OE1	24:BC:100:ARG:NE	2.40	0.52
24:BC:94:LEU:HB2	24:BC:100:ARG:HD2	1.92	0.52
24:BC:141:HIS:N	24:BC:190:THR:O	2.34	0.52
25:BD:62:LYS:N	25:BD:63:PRO:CD	2.73	0.52
26:BE:72:SER:C	26:BE:74:LYS:N	2.68	0.52
28:BG:30:GLY:CA	28:BG:78:VAL:HG12	2.38	0.52
32:BK:63:VAL:CG1	32:BK:103:VAL:HG12	2.39	0.52
33:BL:85:VAL:CG2	33:BL:94:THR:HG23	2.39	0.52
33:BL:92:LEU:CD2	33:BL:124:GLY:HA3	2.40	0.52
37:BP:24:THR:O	37:BP:24:THR:HG23	2.08	0.52
38:BQ:78:PHE:CZ	38:BQ:82:LEU:HD11	2.45	0.52
43:BV:44:HIS:CE1	43:BV:86:LEU:H	2.10	0.52
53:CA:35:G:H2'	53:CA:36:C:C6	2.45	0.52
53:CA:72:A:H61	53:CA:99:C:C1'	2.22	0.52
53:CA:132:C:O2'	53:CA:133:U:O5'	2.27	0.52
53:CA:193:C:H1'	20:CT:54:GLN:NE2	2.23	0.52
53:CA:577:G:C4	53:CA:816:A:C2	2.98	0.52
53:CA:892:A:O2'	53:CA:1415:G:O2'	2.26	0.52
53:CA:981:U:H2'	53:CA:982:U:C5	2.45	0.52
53:CA:1269:A:H2'	53:CA:1270:G:H5'	1.91	0.52
2:CB:47:PRO:HA	2:CB:50:ASN:HB2	1.92	0.52
4:CD:106:PHE:HA	4:CD:154:VAL:HG23	1.92	0.52
5:CE:56:PRO:O	5:CE:59:ILE:HG23	2.09	0.52
5:CE:98:ALA:O	5:CE:121:ASN:HB2	2.10	0.52
5:CE:114:LEU:O	5:CE:119:VAL:HG23	2.10	0.52
54:CG:91:ARG:NH2	54:CG:92:PRO:HB2	2.24	0.52
8:CH:97:GLY:O	8:CH:98:LEU:HB2	2.10	0.52
9:CI:5:TYR:CD2	9:CI:5:TYR:N	2.77	0.52
9:CI:98:ARG:HG2	9:CI:103:VAL:HG21	1.91	0.52
10:CJ:11:LYS:HE2	10:CJ:97:ASP:CG	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CJ:37:ARG:CG	10:CJ:75:ASP:HB3	2.39	0.52
11:CK:51:PHE:C	11:CK:52:ARG:HD2	2.35	0.52
55:CM:16:ILE:HD12	55:CM:16:ILE:H	1.75	0.52
14:CN:76:PHE:CE2	14:CN:95:LEU:HD22	2.45	0.52
56:CP:35:ARG:HH12	56:CP:38:PHE:HB3	1.75	0.52
18:CR:62:ARG:HB3	18:CR:69:TYR:CE1	2.44	0.52
22:DA:422:A:H2'	22:DA:423:A:C8	2.44	0.52
22:DA:422:A:H2'	22:DA:423:A:H8	1.75	0.52
22:DA:567:U:C4	22:DA:568:U:C4	2.97	0.52
22:DA:813:U:C2	22:DA:814:C:C5	2.97	0.52
22:DA:845:A:N6	22:DA:932:U:N3	2.57	0.52
22:DA:855:G:C2	44:DW:23:LYS:HG2	2.45	0.52
22:DA:959:A:OP2	22:DA:959:A:H4'	2.09	0.52
22:DA:1070:A:H61	30:DI:8:VAL:HG12	1.74	0.52
22:DA:1190:G:O2'	22:DA:1191:G:H5'	2.10	0.52
22:DA:1378:A:H2'	22:DA:1380:G:N7	2.24	0.52
22:DA:1469:A:C2	22:DA:1470:A:C5	2.96	0.52
22:DA:1507:C:H3'	22:DA:1508:A:O4'	2.10	0.52
22:DA:1797:G:H4'	24:DC:254:LYS:O	2.09	0.52
22:DA:1815:A:C2	22:DA:1817:G:O6	2.63	0.52
22:DA:2056:G:N3	22:DA:2056:G:H2'	2.23	0.52
22:DA:2094:A:O2'	22:DA:2095:A:H8	1.92	0.52
22:DA:2353:G:N3	44:DW:30:VAL:HG13	2.25	0.52
22:DA:2725:A:C4	22:DA:2727:A:N7	2.78	0.52
22:DA:2875:C:O2'	22:DA:2876:G:C5'	2.57	0.52
24:DC:141:HIS:HB2	24:DC:190:THR:O	2.10	0.52
26:DE:158:PHE:HA	26:DE:169:VAL:HG11	1.90	0.52
58:DF:177:ARG:CZ	58:DF:178:LYS:H	2.21	0.52
29:DH:24:GLY:O	29:DH:25:TYR:C	2.51	0.52
30:DI:105:LEU:HD21	30:DI:129:GLU:CD	2.35	0.52
32:DK:39:ILE:HB	32:DK:41:ILE:HD13	1.91	0.52
35:DN:9:GLN:O	35:DN:17:ARG:CD	2.58	0.52
39:DR:19:THR:HG22	39:DR:20:VAL:N	2.24	0.52
1:AA:74:A:C2	1:AA:75:G:C5	2.98	0.52
1:AA:115:G:H1'	1:AA:116:A:N7	2.25	0.52
1:AA:327:A:H4'	1:AA:328:C:OP1	2.09	0.52
1:AA:372:C:C4'	1:AA:373:A:OP1	2.55	0.52
1:AA:411:A:HO2'	1:AA:413:G:H5''	1.72	0.52
1:AA:945:G:C6	1:AA:1337:G:C5	2.98	0.52
1:AA:1447:A:H5''	1:AA:1448:C:H5	1.74	0.52
5:AE:100:GLU:HB2	5:AE:103:GLY:N	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:96:ASN:N	7:AG:96:ASN:OD1	2.42	0.52
8:AH:14:ARG:HE	8:AH:74:ILE:HG23	1.74	0.52
11:AK:51:PHE:HZ	11:AK:64:VAL:HG11	1.74	0.52
11:AK:57:SER:O	11:AK:90:PRO:HG3	2.10	0.52
21:AU:16:ARG:NH1	21:AU:19:LYS:CG	2.58	0.52
22:BA:459:U:H2'	22:BA:460:A:H8	1.75	0.52
22:BA:528:A:H2	22:BA:2042:A:H2'	1.71	0.52
22:BA:565:C:H2'	22:BA:566:U:O4'	2.10	0.52
22:BA:591:U:H1'	51:B3:1:PRO:H3	1.74	0.52
22:BA:946:C:H2'	22:BA:947:A:H8	1.75	0.52
22:BA:1157:G:H2'	22:BA:1158:C:C6	2.45	0.52
22:BA:1248:G:O2'	38:BQ:2:ARG:HA	2.09	0.52
22:BA:1347:A:H2'	22:BA:1348:C:C5'	2.40	0.52
22:BA:1419:A:C5	22:BA:1421:G:C4	2.98	0.52
22:BA:1832:C:N4	22:BA:1833:C:C4	2.78	0.52
22:BA:2046:G:OP1	48:B0:11:LYS:HE3	2.10	0.52
22:BA:2182:U:H2'	22:BA:2183:A:OP1	2.09	0.52
22:BA:2392:A:H4'	51:B3:27:ASN:ND2	2.24	0.52
24:BC:12:ARG:HD2	24:BC:15:VAL:HG21	1.91	0.52
27:BF:66:ILE:O	27:BF:66:ILE:HG13	2.09	0.52
28:BG:101:VAL:CG1	28:BG:115:GLN:HB3	2.40	0.52
31:BJ:14:ASP:O	31:BJ:52:ASP:HB3	2.10	0.52
32:BK:107:LEU:O	32:BK:109:SER:N	2.37	0.52
44:BW:46:ALA:HB3	44:BW:79:ILE:C	2.33	0.52
48:B0:43:THR:HG23	48:B0:47:TYR:O	2.10	0.52
48:B0:48:TYR:O	48:B0:49:ARG:HB2	2.10	0.52
53:CA:158:G:H2'	53:CA:159:G:C8	2.45	0.52
53:CA:286:C:H2'	53:CA:287:U:O4'	2.10	0.52
53:CA:444:G:O2'	53:CA:445:G:H5'	2.09	0.52
53:CA:954:G:H1	53:CA:1228:C:H42	1.57	0.52
53:CA:982:U:H4'	53:CA:983:A:C5'	2.40	0.52
53:CA:1004:A:C4	53:CA:1026:G:N7	2.78	0.52
53:CA:1014:A:O3'	19:CS:13:HIS:CG	2.63	0.52
53:CA:1152:A:C2'	53:CA:1153:G:H8	2.06	0.52
53:CA:1288:A:O2'	53:CA:1289:A:C8	2.63	0.52
5:CE:130:THR:HA	5:CE:135:VAL:HG22	1.91	0.52
9:CI:45:MET:HA	9:CI:48:ARG:HB2	1.92	0.52
12:CL:3:VAL:CG2	12:CL:4:ASN:N	2.70	0.52
21:CU:25:ALA:O	21:CU:26:GLY:C	2.53	0.52
22:DA:215:G:O2'	22:DA:216:A:O5'	2.25	0.52
22:DA:405:U:H3'	22:DA:406:G:C5'	2.40	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:447:A:C4	22:DA:473:G:C8	2.97	0.52
22:DA:528:A:H2	22:DA:2043:C:C5'	2.23	0.52
22:DA:813:U:N1	22:DA:1195:G:N2	2.57	0.52
22:DA:1179:G:C2	22:DA:1180:U:C2	2.97	0.52
22:DA:1717:A:O2'	22:DA:1718:G:H5'	2.10	0.52
22:DA:1982:U:H6	22:DA:1982:U:C5'	2.23	0.52
22:DA:2040:G:C6	22:DA:2041:U:C4	2.97	0.52
22:DA:2077:A:OP1	22:DA:2238:G:N1	2.41	0.52
22:DA:2093:G:O2'	22:DA:2094:A:P	2.66	0.52
22:DA:2144:G:O2'	22:DA:2147:A:OP2	2.23	0.52
22:DA:2188:U:H2'	22:DA:2189:U:C6	2.45	0.52
22:DA:2235:G:C4	22:DA:2236:U:C6	2.97	0.52
22:DA:2324:U:H5''	22:DA:2325:G:H5''	1.91	0.52
22:DA:2432:A:N6	45:DX:20:ALA:HA	2.24	0.52
22:DA:2531:A:H5'	28:DG:156:TYR:CE2	2.45	0.52
22:DA:2623:G:C4'	22:DA:2825:G:H8	2.22	0.52
22:DA:2668:G:O2'	22:DA:2669:G:O5'	2.28	0.52
22:DA:2688:G:N1	22:DA:2720:U:OP2	2.33	0.52
57:DB:58:A:O2'	57:DB:59:A:O5'	2.28	0.52
57:DB:59:A:H2'	57:DB:60:C:O4'	2.09	0.52
29:DH:125:THR:CB	29:DH:146:VAL:HG11	2.40	0.52
31:DJ:41:LYS:C	31:DJ:43:GLU:N	2.68	0.52
31:DJ:95:ARG:NH1	31:DJ:99:ARG:NH2	2.58	0.52
34:DM:57:VAL:O	34:DM:58:LYS:HB2	2.09	0.52
36:DO:74:VAL:HB	36:DO:106:LEU:HD11	1.92	0.52
37:DP:37:LYS:O	37:DP:38:ARG:HB3	2.10	0.52
37:DP:47:ILE:HD13	37:DP:61:ARG:CB	2.40	0.52
38:DQ:15:LYS:HE3	38:DQ:19:GLN:NE2	2.24	0.52
39:DR:51:VAL:HB	39:DR:52:PRO:CD	2.40	0.52
39:DR:83:TYR:CD2	39:DR:83:TYR:C	2.87	0.52
41:DT:11:LEU:H	41:DT:11:LEU:CD1	2.22	0.52
41:DT:13:ALA:HB1	41:DT:14:PRO:HD2	1.92	0.52
43:DV:29:ILE:HD11	43:DV:90:ASP:CG	2.34	0.52
48:D0:5:ASN:HD22	48:D0:6:LYS:H	1.54	0.52
1:AA:138:G:O2'	1:AA:139:A:H5'	2.10	0.52
1:AA:306:A:H2'	1:AA:307:C:C6	2.45	0.52
1:AA:402:G:C5	1:AA:403:C:C5	2.98	0.52
1:AA:466:A:C4'	1:AA:467:U:OP2	2.58	0.52
1:AA:1095:U:H2'	1:AA:1096:C:C6	2.45	0.52
1:AA:1256:A:H1'	1:AA:1258:G:C6	2.44	0.52
1:AA:1272:G:O2'	1:AA:1273:C:H5'	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1310:G:H2'	1:AA:1311:A:O4'	2.10	0.52
1:AA:1349:A:O2'	1:AA:1350:A:H5'	2.08	0.52
2:AB:64:GLY:HA3	2:AB:158:ASP:OD2	2.09	0.52
3:AC:35:ASP:C	3:AC:37:LYS:H	2.18	0.52
3:AC:102:ILE:H	3:AC:102:ILE:HD12	1.75	0.52
13:AM:65:GLU:O	13:AM:69:ARG:HG3	2.10	0.52
15:AO:74:VAL:O	15:AO:77:TYR:N	2.43	0.52
19:AS:45:GLY:N	19:AS:61:VAL:HG23	2.25	0.52
19:AS:62:THR:HG22	19:AS:63:ASP:N	2.23	0.52
22:BA:264:C:C3'	22:BA:265:A:H5''	2.38	0.52
22:BA:271:G:C4	22:BA:272:A:N7	2.78	0.52
22:BA:340:A:H2'	22:BA:341:C:C5'	2.40	0.52
22:BA:422:A:C2	22:BA:423:A:C4	2.98	0.52
22:BA:731:C:O5'	22:BA:731:C:H6	1.91	0.52
22:BA:807:U:C2	22:BA:808:G:C8	2.98	0.52
22:BA:1083:U:C5	22:BA:1085:A:OP2	2.63	0.52
22:BA:1661:G:H2'	22:BA:1662:U:H6	1.74	0.52
22:BA:1681:G:HO2'	22:BA:1762:A:H1'	1.75	0.52
22:BA:1700:A:O2'	22:BA:1766:G:OP1	2.27	0.52
22:BA:2358:A:H5''	22:BA:2359:C:OP2	2.10	0.52
22:BA:2773:C:OP1	25:BD:171:THR:HG23	2.10	0.52
22:BA:2789:C:N4	22:BA:2893:A:C2	2.78	0.52
25:BD:62:LYS:O	25:BD:65:ALA:HB3	2.10	0.52
26:BE:117:ARG:HA	26:BE:185:LYS:CD	2.40	0.52
29:BH:31:VAL:CG2	29:BH:32:PRO:HD2	2.40	0.52
31:BJ:33:ALA:HA	31:BJ:36:LEU:HB2	1.91	0.52
32:BK:111:LYS:HE2	32:BK:111:LYS:N	2.25	0.52
34:BM:108:VAL:CG1	34:BM:112:LEU:HB3	2.40	0.52
35:BN:8:ARG:HD2	35:BN:43:GLU:HG3	1.91	0.52
36:BO:76:LYS:O	36:BO:79:ALA:HB3	2.10	0.52
37:BP:50:ARG:HG2	37:BP:56:SER:C	2.31	0.52
37:BP:92:ARG:O	37:BP:93:LYS:CB	2.56	0.52
41:BT:32:LEU:H	41:BT:83:ALA:HB2	1.72	0.52
43:BV:48:MET:HE2	43:BV:84:PRO:O	2.10	0.52
44:BW:72:GLY:C	44:BW:74:LYS:N	2.68	0.52
46:BY:16:THR:O	46:BY:20:ASN:N	2.37	0.52
53:CA:112:G:C2	53:CA:330:C:C4	2.98	0.52
53:CA:142:G:C2	53:CA:143:A:H1'	2.45	0.52
53:CA:214:C:C2	53:CA:215:C:C5	2.98	0.52
53:CA:251:G:H4'	53:CA:252:U:H5''	1.84	0.52
53:CA:443:C:O5'	53:CA:443:C:H6	1.93	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:444:G:C2'	53:CA:445:G:H5'	2.40	0.52
53:CA:583:A:H2'	53:CA:584:G:O4'	2.09	0.52
53:CA:723:U:O4'	21:CU:48:LYS:CD	2.57	0.52
53:CA:914:A:O2'	53:CA:915:A:O5'	2.28	0.52
53:CA:1072:G:H2'	53:CA:1073:U:O4'	2.10	0.52
53:CA:1072:G:C6	53:CA:1073:U:C4	2.97	0.52
53:CA:1434:A:H2'	53:CA:1435:G:O4'	2.10	0.52
4:CD:116:LEU:CD2	4:CD:153:ARG:NH1	2.72	0.52
5:CE:84:VAL:HG22	5:CE:85:LYS:H	1.74	0.52
54:CG:10:LYS:HE3	54:CG:10:LYS:H	1.74	0.52
54:CG:19:SER:O	54:CG:23:ALA:HB2	2.10	0.52
9:CI:119:LYS:HG2	9:CI:122:ARG:HB3	1.92	0.52
20:CT:4:LYS:HE3	20:CT:5:SER:H	1.75	0.52
21:CU:36:PHE:CD1	21:CU:40:PRO:HB3	2.45	0.52
22:DA:129:C:HO2'	22:DA:130:C:H6	1.58	0.52
22:DA:169:G:H2'	22:DA:170:U:C6	2.45	0.52
22:DA:225:C:N3	22:DA:231:A:N6	2.58	0.52
22:DA:590:A:C5	22:DA:591:U:C5	2.98	0.52
22:DA:686:U:N3	50:D2:12:ARG:HB2	2.24	0.52
22:DA:1519:G:C6	22:DA:1520:U:N3	2.78	0.52
22:DA:2056:G:N2	22:DA:2057:G:C8	2.78	0.52
22:DA:2197:U:H2'	22:DA:2224:G:H1	1.75	0.52
22:DA:2353:G:N3	44:DW:30:VAL:CG1	2.73	0.52
22:DA:2482:A:H2'	22:DA:2483:C:H6	1.75	0.52
22:DA:2555:U:H2'	22:DA:2556:C:H5'	1.92	0.52
22:DA:2819:G:H5''	62:DA:3797:HOH:O	2.09	0.52
22:DA:2865:U:C5	22:DA:2866:U:C2	2.98	0.52
22:DA:2876:G:HO2'	22:DA:2877:G:P	2.33	0.52
24:DC:67:LYS:CG	24:DC:150:GLY:HA2	2.40	0.52
24:DC:131:MET:HE2	24:DC:187:CYS:O	2.10	0.52
25:DD:10:GLY:HA2	37:DP:4:ILE:HD11	1.90	0.52
58:DF:123:GLY:H	58:DF:126:ASN:HD22	1.58	0.52
58:DF:147:ARG:HD3	58:DF:149:ARG:HH22	1.75	0.52
29:DH:80:ILE:HD13	29:DH:101:ASP:OD2	2.09	0.52
29:DH:83:LYS:CE	29:DH:149:GLU:HB3	2.32	0.52
31:DJ:1:MET:SD	31:DJ:2:LYS:HE3	2.50	0.52
31:DJ:58:ASN:HA	31:DJ:127:GLY:N	2.25	0.52
38:DQ:91:ARG:HD3	39:DR:11:GLN:HG3	1.92	0.52
42:DU:82:VAL:O	42:DU:96:LYS:HG3	2.10	0.52
46:DY:50:VAL:HA	46:DY:53:VAL:HG23	1.92	0.52
51:D3:18:LYS:HD2	51:D3:19:GLY:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:D3:41:ARG:CG	51:D3:41:ARG:NH2	2.60	0.52
1:AA:367:U:C6	1:AA:394:G:N2	2.78	0.52
1:AA:468:A:C2	1:AA:469:C:C5	2.98	0.52
1:AA:624:C:H4'	16:AP:10:GLY:O	2.09	0.52
1:AA:642:A:N7	8:AH:106:SER:HA	2.25	0.52
1:AA:742:G:O2'	1:AA:743:A:H5'	2.10	0.52
1:AA:826:C:C5'	8:AH:12:ARG:HH21	2.21	0.52
1:AA:922:G:H2'	1:AA:923:A:C8	2.45	0.52
1:AA:1086:U:C3'	1:AA:1087:G:H5'	2.40	0.52
1:AA:1160:G:O6	1:AA:1181:G:O6	2.27	0.52
2:AB:67:LEU:HD22	2:AB:69:VAL:CG2	2.39	0.52
8:AH:9:MET:HE2	8:AH:32:LYS:CB	2.40	0.52
15:AO:63:ARG:CG	15:AO:87:ARG:HH12	2.09	0.52
17:AQ:11:VAL:HG12	17:AQ:12:VAL:HG12	1.91	0.52
17:AQ:13:SER:O	17:AQ:20:ILE:HD11	2.10	0.52
19:AS:33:TRP:O	19:AS:35:ARG:HG3	2.10	0.52
22:BA:137:U:O2'	22:BA:138:U:P	2.69	0.52
22:BA:328:U:O3'	42:BU:65:GLN:HG3	2.10	0.52
22:BA:568:U:O2	22:BA:570:G:C8	2.63	0.52
22:BA:1131:G:C4	31:BJ:77:HIS:ND1	2.78	0.52
22:BA:1452:G:H2'	22:BA:1457:U:O4	2.10	0.52
22:BA:1681:G:O2'	22:BA:1762:A:C1'	2.57	0.52
22:BA:1728:C:O2'	22:BA:1729:U:H6	1.92	0.52
22:BA:1830:C:O5'	22:BA:1830:C:H6	1.93	0.52
22:BA:2287:A:C4	22:BA:2289:G:N7	2.78	0.52
22:BA:2531:A:P	28:BG:174:LYS:HG3	2.50	0.52
22:BA:2837:A:C6	22:BA:2882:A:N1	2.78	0.52
23:BB:61:G:H2'	23:BB:62:C:C6	2.45	0.52
24:BC:134:ILE:O	24:BC:166:ARG:NH1	2.42	0.52
26:BE:164:LEU:HB3	26:BE:167:VAL:HG12	1.91	0.52
27:BF:147:ARG:HG3	27:BF:148:VAL:N	2.24	0.52
28:BG:29:ASN:H	28:BG:29:ASN:HD22	1.58	0.52
28:BG:122:ALA:HB2	28:BG:132:LEU:HB3	1.91	0.52
31:BJ:40:HIS:C	38:BQ:66:ALA:HB1	2.34	0.52
31:BJ:97:PRO:C	31:BJ:99:ARG:H	2.17	0.52
33:BL:57:LEU:CD1	33:BL:61:LEU:HD21	2.40	0.52
34:BM:36:VAL:HG22	43:BV:82:TYR:HD1	1.74	0.52
38:BQ:94:LEU:C	38:BQ:96:ASP:H	2.17	0.52
39:BR:38:VAL:HG23	39:BR:40:MET:H	1.75	0.52
41:BT:43:ILE:CD1	41:BT:58:VAL:HG21	2.40	0.52
44:BW:76:ARG:HH21	44:BW:76:ARG:HG2	1.72	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:6:VAL:HG13	45:BX:7:THR:HG23	1.92	0.52
45:BX:34:SER:HA	45:BX:48:LEU:O	2.10	0.52
45:BX:77:TYR:O	45:BX:77:TYR:CG	2.63	0.52
53:CA:16:A:N1	53:CA:919:A:H2	2.08	0.52
53:CA:189:A:H3'	53:CA:190:A:C8	2.45	0.52
53:CA:563:A:OP2	12:CL:11:ARG:HG3	2.10	0.52
53:CA:718:A:N7	11:CK:117:HIS:CD2	2.78	0.52
53:CA:787:A:C2	53:CA:796:C:N3	2.78	0.52
53:CA:803:G:H2'	53:CA:804:U:C6	2.44	0.52
53:CA:815:A:C2	53:CA:1529:G:C4	2.98	0.52
53:CA:895:G:C6	53:CA:896:C:C4	2.97	0.52
53:CA:1004:A:N3	53:CA:1026:G:C5	2.78	0.52
53:CA:1130:A:N7	53:CA:1146:A:N6	2.58	0.52
53:CA:1145:A:O2'	53:CA:1146:A:C5'	2.53	0.52
53:CA:1213:A:H2'	53:CA:1215:G:N7	2.25	0.52
53:CA:1217:C:O2'	53:CA:1218:C:O4'	2.28	0.52
53:CA:1283:U:H2'	53:CA:1284:C:H6	1.75	0.52
53:CA:1430:A:N6	53:CA:1431:A:C2	2.78	0.52
53:CA:1508:A:H2'	53:CA:1509:C:C6	2.45	0.52
2:CB:19:THR:HG22	2:CB:37:VAL:CA	2.40	0.52
2:CB:26:MET:HA	2:CB:26:MET:HE3	1.91	0.52
4:CD:120:LYS:O	4:CD:145:ARG:NH1	2.42	0.52
6:CF:39:LEU:HD12	6:CF:39:LEU:C	2.35	0.52
9:CI:56:MET:O	9:CI:58:GLU:HG2	2.10	0.52
22:DA:95:A:HO2'	46:DY:39:GLN:HA	1.74	0.52
22:DA:137:U:C4	22:DA:138:U:C2	2.98	0.52
22:DA:191:A:C2	62:DA:3336:HOH:O	2.62	0.52
22:DA:216:A:N6	22:DA:432:A:C1'	2.73	0.52
22:DA:365:U:H2'	22:DA:366:C:O4'	2.10	0.52
22:DA:475:C:C2'	22:DA:476:G:C8	2.93	0.52
22:DA:566:U:C5	22:DA:567:U:C5	2.98	0.52
22:DA:584:C:N4	22:DA:585:G:C6	2.78	0.52
22:DA:786:C:H4'	22:DA:1780:A:N7	2.25	0.52
22:DA:1038:G:C3'	22:DA:1039:A:C5'	2.88	0.52
22:DA:1076:C:O2'	22:DA:1077:A:C8	2.62	0.52
22:DA:1341:G:C2	41:DT:84:TYR:CE2	2.98	0.52
22:DA:1520:U:O4	22:DA:1521:G:C6	2.63	0.52
22:DA:2011:U:H2'	22:DA:2012:G:O4'	2.09	0.52
22:DA:2212:A:N7	22:DA:2214:C:N4	2.58	0.52
22:DA:2714:G:O2'	22:DA:2715:C:C5'	2.55	0.52
22:DA:2839:G:N2	22:DA:2880:C:C4	2.78	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2875:C:HO2'	22:DA:2876:G:H8	0.65	0.52
22:DA:2889:C:N4	22:DA:2890:G:C6	2.77	0.52
26:DE:5:LEU:HD12	26:DE:10:SER:HB2	1.92	0.52
29:DH:84:ALA:CA	29:DH:148:ALA:HA	2.39	0.52
30:DI:121:ILE:HG22	30:DI:121:ILE:O	2.09	0.52
38:DQ:71:ASN:HD21	38:DQ:106:THR:CA	2.21	0.52
42:DU:42:LYS:NZ	42:DU:42:LYS:CB	2.73	0.52
43:DV:77:VAL:O	43:DV:77:VAL:HG13	2.10	0.52
44:DW:18:LYS:N	44:DW:36:ILE:HG12	2.25	0.52
44:DW:30:VAL:O	44:DW:30:VAL:HG22	2.09	0.52
45:DX:1:SER:O	45:DX:3:VAL:N	2.43	0.52
46:DY:47:ARG:O	46:DY:50:VAL:N	2.42	0.52
1:AA:15:G:O4'	5:AE:28:ARG:NH1	2.43	0.51
1:AA:211:G:H2'	1:AA:212:G:O5'	2.10	0.51
1:AA:502:A:OP1	12:AL:114:SER:HB3	2.10	0.51
1:AA:858:G:O2'	1:AA:859:G:H5''	2.10	0.51
1:AA:967:C:O5'	1:AA:967:C:H6	1.93	0.51
1:AA:1216:A:C2	1:AA:1217:C:C4	2.99	0.51
2:AB:40:ILE:HG21	2:AB:201:GLY:N	2.25	0.51
2:AB:49:PHE:CG	2:AB:212:TYR:OH	2.63	0.51
3:AC:76:ILE:CD1	3:AC:102:ILE:HG12	2.22	0.51
4:AD:55:ARG:HH12	4:AD:58:GLN:CG	2.15	0.51
6:AF:3:HIS:H	6:AF:92:THR:HG21	1.68	0.51
10:AJ:33:GLY:O	10:AJ:34:ALA:HB2	2.09	0.51
22:BA:26:G:C6	22:BA:27:G:N1	2.77	0.51
22:BA:31:C:O3'	22:BA:1238:G:H5'	2.10	0.51
22:BA:62:U:H5''	22:BA:63:A:OP1	2.11	0.51
22:BA:161:A:OP2	22:BA:162:U:H3'	2.09	0.51
22:BA:919:U:C3'	22:BA:919:U:C6	2.93	0.51
22:BA:945:A:H5'	22:BA:946:C:OP2	2.10	0.51
22:BA:1019:U:C2	22:BA:1142:A:N6	2.78	0.51
22:BA:1665:A:H5''	32:BK:66:LYS:HG3	1.92	0.51
22:BA:1867:G:H2'	22:BA:1868:C:C5'	2.39	0.51
22:BA:2092:U:O2'	22:BA:2093:G:P	2.69	0.51
22:BA:2231:U:H2'	22:BA:2232:C:C5'	2.40	0.51
22:BA:2888:C:H2'	22:BA:2889:C:C6	2.37	0.51
24:BC:29:PHE:O	24:BC:30:ALA:C	2.53	0.51
26:BE:37:ALA:C	26:BE:39:ALA:H	2.18	0.51
26:BE:79:ARG:O	26:BE:80:SER:C	2.54	0.51
27:BF:27:VAL:O	27:BF:27:VAL:HG13	2.10	0.51
28:BG:117:PRO:O	28:BG:118:ALA:C	2.53	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:77:ILE:HD12	32:BK:77:ILE:N	2.24	0.51
34:BM:53:MET:HE1	34:BM:103:TYR:CE2	2.44	0.51
35:BN:52:ILE:HD12	35:BN:94:TYR:HB2	1.91	0.51
38:BQ:23:TYR:HB3	38:BQ:27:ARG:HB3	1.92	0.51
40:BS:69:LEU:HG	40:BS:107:VAL:HG13	1.91	0.51
40:BS:107:VAL:O	40:BS:107:VAL:HG12	2.09	0.51
53:CA:52:C:OP2	53:CA:52:C:H4'	2.10	0.51
53:CA:97:G:H2'	53:CA:98:A:O5'	2.09	0.51
53:CA:250:A:O2'	53:CA:251:G:H5''	2.10	0.51
53:CA:282:A:O2'	53:CA:283:U:H5'	2.10	0.51
53:CA:560:A:H5'	53:CA:566:G:H21	1.74	0.51
53:CA:807:A:H2'	53:CA:808:C:C6	2.45	0.51
53:CA:1146:A:C6	53:CA:1147:C:C4	2.98	0.51
53:CA:1298:U:C5	54:CG:113:LYS:HA	2.44	0.51
53:CA:1494:G:H5'	22:DA:1913:A:C5	2.45	0.51
2:CB:151:LYS:HG3	2:CB:152:ASP:N	2.24	0.51
3:CC:7:ASN:HD22	14:CN:89:ARG:HA	1.75	0.51
9:CI:5:TYR:N	9:CI:5:TYR:HD2	2.07	0.51
17:CQ:3:LYS:HZ2	17:CQ:6:THR:HG21	1.74	0.51
22:DA:31:C:H6	22:DA:31:C:O5'	1.93	0.51
22:DA:648:G:H2'	22:DA:649:G:C8	2.45	0.51
22:DA:830:G:H4'	22:DA:831:G:OP2	2.09	0.51
22:DA:845:A:C2	22:DA:847:U:N1	2.78	0.51
22:DA:1026:G:H2'	22:DA:1027:A:C8	2.45	0.51
22:DA:1068:G:C8	22:DA:1069:A:N7	2.78	0.51
22:DA:1281:G:N7	22:DA:1282:U:C5	2.79	0.51
22:DA:2151:U:C2	22:DA:2152:G:C8	2.98	0.51
22:DA:2250:G:N2	34:DM:82:MET:CB	2.73	0.51
24:DC:2:VAL:O	24:DC:3:VAL:CB	2.58	0.51
24:DC:245:THR:C	24:DC:247:TRP:H	2.18	0.51
25:DD:32:ASN:HA	25:DD:51:THR:O	2.10	0.51
26:DE:34:ALA:HA	26:DE:94:GLN:HG3	1.92	0.51
58:DF:59:ILE:CD1	58:DF:137:PHE:CZ	2.92	0.51
28:DG:91:VAL:HG23	28:DG:92:GLY:N	2.26	0.51
29:DH:80:ILE:CB	29:DH:101:ASP:CB	2.79	0.51
32:DK:40:LYS:HZ1	32:DK:89:ASN:HD21	1.57	0.51
40:DS:20:VAL:CG1	40:DS:43:ALA:HB1	2.40	0.51
41:DT:24:MET:HA	41:DT:24:MET:CE	2.36	0.51
43:DV:21:ARG:HE	43:DV:87:GLN:CB	2.22	0.51
49:D1:8:ILE:CG2	49:D1:9:LYS:N	2.73	0.51
1:AA:195:A:O2'	1:AA:196:A:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:571:U:C5'	1:AA:572:A:OP2	2.55	0.51
1:AA:602:A:C2'	1:AA:603:U:H5'	2.40	0.51
1:AA:604:G:C2	1:AA:635:A:C2	2.98	0.51
1:AA:1111:A:N1	3:AC:176:THR:HG23	2.24	0.51
1:AA:1350:A:H2	7:AG:33:GLY:HA3	1.75	0.51
1:AA:1508:A:H2'	1:AA:1509:C:C6	2.45	0.51
2:AB:53:LEU:N	2:AB:53:LEU:HD22	2.25	0.51
8:AH:17:GLN:NE2	8:AH:71:VAL:H	2.09	0.51
10:AJ:12:ALA:HB2	10:AJ:96:VAL:HG13	1.91	0.51
11:AK:60:PHE:O	11:AK:63:GLN:HB3	2.10	0.51
11:AK:122:PRO:HG2	21:AU:33:ARG:O	2.10	0.51
11:AK:125:LYS:O	11:AK:126:ARG:CB	2.57	0.51
13:AM:47:LEU:HD23	13:AM:51:GLN:HB3	1.93	0.51
17:AQ:11:VAL:HG12	17:AQ:12:VAL:H	1.74	0.51
18:AR:24:ASP:O	18:AR:27:THR:N	2.31	0.51
22:BA:646:U:H5'	22:BA:647:G:H5''	1.92	0.51
22:BA:675:A:C4	22:BA:804:A:C2	2.98	0.51
22:BA:958:U:H5''	34:BM:14:LYS:HE2	1.92	0.51
22:BA:1494:A:O2'	22:BA:1495:A:H5'	2.11	0.51
22:BA:1785:A:O2'	22:BA:1786:A:H2'	2.10	0.51
22:BA:2431:U:C6	22:BA:2431:U:C5'	2.80	0.51
22:BA:2470:G:C2'	22:BA:2471:A:H5'	2.41	0.51
24:BC:170:TYR:HD2	24:BC:183:VAL:C	2.18	0.51
25:BD:103:ASP:O	25:BD:104:VAL:C	2.53	0.51
27:BF:110:ILE:O	27:BF:111:ARG:C	2.53	0.51
29:BH:81:ALA:HB1	29:BH:146:VAL:HA	1.92	0.51
31:BJ:21:THR:O	31:BJ:23:LYS:N	2.43	0.51
34:BM:40:ARG:HB2	34:BM:93:VAL:HG22	1.90	0.51
37:BP:33:GLU:CG	37:BP:36:LYS:HD3	2.39	0.51
40:BS:95:ARG:O	40:BS:96:ILE:CG1	2.58	0.51
42:BU:13:LEU:HD12	42:BU:69:VAL:N	2.26	0.51
47:BZ:40:THR:HG23	47:BZ:43:ILE:HG23	1.91	0.51
53:CA:54:C:N4	53:CA:352:C:H2'	2.26	0.51
53:CA:330:C:O2'	53:CA:331:G:O5'	2.28	0.51
53:CA:533:A:O2'	53:CA:535:A:OP2	2.26	0.51
53:CA:1086:U:HO2'	53:CA:1087:G:H5'	1.74	0.51
53:CA:1144:G:H21	53:CA:1146:A:N6	2.08	0.51
3:CC:86:LEU:O	3:CC:90:VAL:HG22	2.09	0.51
6:CF:90:MET:HE2	18:CR:60:ARG:HD3	1.86	0.51
8:CH:39:LEU:HB2	8:CH:45:ILE:CD1	2.41	0.51
10:CJ:65:TYR:HB3	14:CN:95:LEU:HD12	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:69:ARG:HA	55:CM:72:ILE:CG2	2.41	0.51
14:CN:63:CYS:HB3	14:CN:68:ARG:H	1.76	0.51
18:CR:54:LEU:O	18:CR:58:ILE:HG13	2.10	0.51
22:DA:109:C:H4'	22:DA:348:A:H4'	1.91	0.51
22:DA:121:G:C2	22:DA:131:A:C5	2.98	0.51
22:DA:459:U:O2'	22:DA:460:A:C5'	2.59	0.51
22:DA:486:C:O5'	22:DA:486:C:H6	1.93	0.51
22:DA:504:A:O2'	22:DA:505:A:P	2.69	0.51
22:DA:560:C:O2'	38:DQ:47:ARG:NH1	2.44	0.51
22:DA:560:C:O5'	22:DA:560:C:H6	1.93	0.51
22:DA:589:U:C2	22:DA:590:A:N7	2.79	0.51
22:DA:1285:A:N6	22:DA:1329:U:C5	2.78	0.51
22:DA:1430:G:H2'	22:DA:1431:A:H8	1.74	0.51
22:DA:1566:A:H2	24:DC:212:TRP:HB2	1.74	0.51
22:DA:1683:U:O2'	22:DA:1684:G:C5'	2.59	0.51
22:DA:2201:G:H2'	22:DA:2202:U:C6	2.42	0.51
22:DA:2230:G:O3'	45:DX:29:LEU:HD12	2.10	0.51
22:DA:2544:G:H2'	22:DA:2545:G:C8	2.45	0.51
24:DC:144:GLU:HB3	24:DC:187:CYS:CB	2.29	0.51
24:DC:211:ARG:HD2	24:DC:215:VAL:O	2.11	0.51
26:DE:147:LEU:CG	26:DE:186:VAL:HG23	2.39	0.51
58:DF:113:PHE:HE2	58:DF:116:LEU:HB2	1.75	0.51
33:DL:89:VAL:HG23	33:DL:121:THR:CG2	2.39	0.51
35:DN:37:THR:HA	35:DN:110:MET:HE2	1.92	0.51
40:DS:66:ILE:HA	40:DS:69:LEU:HD13	1.93	0.51
52:D4:1:MET:HE3	52:D4:34:LYS:CE	2.40	0.51
1:AA:185:U:H2'	1:AA:186:C:H6	1.75	0.51
1:AA:381:C:H2'	1:AA:382:A:O4'	2.10	0.51
1:AA:404:G:C2'	1:AA:405:U:H5'	2.40	0.51
1:AA:974:A:H4'	1:AA:975:A:C5'	2.31	0.51
1:AA:1160:G:HO2'	1:AA:1161:C:H6	1.58	0.51
1:AA:1239:A:H62	1:AA:1299:A:H61	1.51	0.51
1:AA:1429:A:H4'	22:BA:1703:G:O2'	2.09	0.51
1:AA:1508:A:H2'	1:AA:1509:C:H6	1.75	0.51
3:AC:6:PRO:HG3	3:AC:183:TYR:CG	2.45	0.51
3:AC:116:ALA:HB1	3:AC:186:SER:HB2	1.92	0.51
5:AE:152:VAL:O	5:AE:156:ARG:HB2	2.10	0.51
6:AF:3:HIS:HB2	6:AF:92:THR:CG2	2.36	0.51
11:AK:35:ASP:OD2	11:AK:39:ASN:HB2	2.10	0.51
13:AM:10:ASP:O	13:AM:11:HIS:HB2	2.10	0.51
13:AM:89:ARG:HH11	13:AM:94:LEU:HB3	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AN:20:PHE:HA	14:AN:24:ALA:CB	2.40	0.51
22:BA:142:A:O2'	22:BA:143:C:O4'	2.28	0.51
22:BA:588:U:O4	22:BA:670:A:H1'	2.09	0.51
22:BA:627:A:C6	22:BA:637:A:C8	2.99	0.51
22:BA:959:A:H2	22:BA:2494:G:H22	1.56	0.51
22:BA:1607:C:H4'	22:BA:1608:A:O5'	2.11	0.51
22:BA:1774:C:O5'	22:BA:1774:C:H6	1.93	0.51
22:BA:1857:G:O2'	22:BA:1858:A:OP2	2.23	0.51
22:BA:2196:C:O2'	22:BA:2197:U:H5'	2.10	0.51
22:BA:2476:A:C2'	22:BA:2477:U:H5'	2.40	0.51
22:BA:2496:C:O2'	22:BA:2497:A:H5'	2.10	0.51
22:BA:2817:U:H2'	22:BA:2818:U:O5'	2.10	0.51
25:BD:182:ALA:C	25:BD:184:ARG:H	2.19	0.51
29:BH:132:PHE:CG	29:BH:133:GLN:N	2.78	0.51
37:BP:57:ALA:HB2	37:BP:74:GLN:HA	1.92	0.51
47:BZ:15:ARG:O	47:BZ:20:LYS:HE2	2.10	0.51
50:B2:22:MET:CE	50:B2:28:ARG:HG2	2.38	0.51
53:CA:43:C:O2'	53:CA:44:A:H5'	2.10	0.51
53:CA:457:G:C8	53:CA:457:G:OP2	2.63	0.51
53:CA:631:C:H5''	53:CA:632:U:O4'	2.09	0.51
53:CA:947:G:P	55:CM:106:ARG:HG3	2.51	0.51
53:CA:1343:G:H2'	53:CA:1344:C:H6	1.76	0.51
2:CB:212:TYR:CD2	2:CB:215:ALA:HB3	2.46	0.51
5:CE:38:VAL:HG23	5:CE:66:ALA:HB1	1.93	0.51
8:CH:28:SER:HB3	8:CH:56:PRO:HB2	1.91	0.51
55:CM:8:ILE:N	55:CM:9:PRO:CD	2.73	0.51
55:CM:23:GLY:O	55:CM:24:VAL:HG13	2.10	0.51
55:CM:46:GLU:O	55:CM:47:LEU:HB2	2.10	0.51
55:CM:75:SER:C	55:CM:77:LYS:H	2.17	0.51
15:CO:63:ARG:NH2	22:DA:715:A:H5'	2.23	0.51
19:CS:16:LYS:O	19:CS:17:LYS:HD3	2.10	0.51
22:DA:95:A:H2'	22:DA:96:C:C4'	2.40	0.51
22:DA:200:U:O4	22:DA:248:G:C2	2.64	0.51
22:DA:231:A:O2'	22:DA:232:G:H5'	2.11	0.51
22:DA:260:G:C6	22:DA:261:G:N7	2.78	0.51
22:DA:301:G:C5	22:DA:302:C:N4	2.79	0.51
22:DA:477:A:O2'	22:DA:478:A:C8	2.45	0.51
22:DA:478:A:C2	22:DA:480:A:C8	2.98	0.51
22:DA:627:A:O2'	22:DA:628:G:P	2.69	0.51
22:DA:691:C:O5'	22:DA:691:C:H6	1.94	0.51
22:DA:1025:G:H1'	22:DA:1135:C:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1905:C:O2'	22:DA:1929:G:H1'	2.10	0.51
22:DA:2409:G:O2'	22:DA:2410:G:O4'	2.14	0.51
22:DA:2575:C:H4'	25:DD:148:GLN:O	2.10	0.51
22:DA:2660:A:C2	22:DA:2661:G:C5	2.98	0.51
22:DA:2683:C:H5''	37:DP:55:HIS:HB3	1.92	0.51
22:DA:2725:A:C4	22:DA:2727:A:C8	2.99	0.51
22:DA:2852:G:H2'	22:DA:2853:C:O4'	2.10	0.51
22:DA:2887:A:H1'	48:D0:39:ARG:HH22	1.76	0.51
22:DA:2893:A:O4'	22:DA:2894:G:C2	2.63	0.51
26:DE:130:LYS:HB3	26:DE:133:LEU:CB	2.25	0.51
26:DE:134:LEU:O	26:DE:138:LEU:HG	2.10	0.51
28:DG:58:ALA:O	28:DG:59:ASP:C	2.53	0.51
29:DH:41:LYS:N	29:DH:44:ILE:HG23	2.22	0.51
30:DI:132:ALA:CB	30:DI:137:LEU:HD12	2.40	0.51
31:DJ:80:HIS:O	31:DJ:81:ILE:C	2.52	0.51
38:DQ:46:TYR:HD1	39:DR:74:ILE:HG21	1.75	0.51
40:DS:22:ASP:HA	40:DS:25:ARG:HH12	1.75	0.51
41:DT:64:LYS:HA	41:DT:79:ASP:OD1	2.09	0.51
45:DX:30:PRO:CG	45:DX:32:LEU:HD21	2.40	0.51
50:D2:34:ARG:HH11	50:D2:39:ARG:HG2	1.73	0.51
1:AA:179:A:O2'	1:AA:180:U:H5'	2.09	0.51
1:AA:184:G:O2'	1:AA:185:U:C6	2.64	0.51
1:AA:404:G:H2'	1:AA:405:U:O4'	2.10	0.51
1:AA:673:A:H2'	1:AA:674:G:C8	2.46	0.51
1:AA:809:G:C6	1:AA:810:C:C5	2.99	0.51
1:AA:827:U:H2'	1:AA:870:U:O4	2.11	0.51
1:AA:1240:U:H3	7:AG:29:LEU:HD23	1.74	0.51
1:AA:1433:A:H2'	1:AA:1434:A:C8	2.46	0.51
1:AA:1478:U:H2'	1:AA:1479:C:C6	2.45	0.51
6:AF:2:ARG:HH21	6:AF:68:GLN:NE2	2.08	0.51
7:AG:83:THR:O	7:AG:84:TYR:C	2.53	0.51
14:AN:2:LYS:HD3	14:AN:5:MET:CG	2.37	0.51
22:BA:143:C:O2'	22:BA:144:A:C8	2.63	0.51
22:BA:163:C:O2'	22:BA:164:C:P	2.68	0.51
22:BA:310:A:O2'	22:BA:311:A:P	2.68	0.51
22:BA:536:G:C2'	22:BA:537:G:H5'	2.39	0.51
22:BA:610:C:H2'	22:BA:611:C:H6	1.74	0.51
22:BA:901:C:H2'	22:BA:902:C:H6	1.75	0.51
22:BA:1069:A:N1	22:BA:1074:G:N7	2.59	0.51
22:BA:1196:C:O4'	22:BA:1226:A:C2	2.64	0.51
22:BA:1682:G:H2'	22:BA:1683:U:C5	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1734:G:C4	22:BA:1735:A:N7	2.79	0.51
22:BA:1833:C:C4	22:BA:1834:U:C5	2.98	0.51
22:BA:1866:A:O2'	22:BA:1867:G:C5'	2.57	0.51
22:BA:2109:U:O4	22:BA:2110:G:C5	2.63	0.51
22:BA:2420:C:O2'	22:BA:2421:G:H5'	2.09	0.51
22:BA:2531:A:C8	28:BG:174:LYS:NZ	2.79	0.51
22:BA:2726:A:N3	32:BK:67:LYS:NZ	2.59	0.51
24:BC:41:GLY:N	24:BC:53:ILE:CG2	2.74	0.51
28:BG:31:GLU:O	28:BG:31:GLU:HG3	2.09	0.51
29:BH:95:GLY:C	29:BH:97:ARG:H	2.18	0.51
30:BI:33:ASN:HB3	30:BI:36:GLU:CB	2.38	0.51
31:BJ:43:GLU:O	31:BJ:45:THR:O	2.28	0.51
33:BL:75:ALA:O	33:BL:108:ALA:HA	2.10	0.51
34:BM:31:PHE:CZ	34:BM:110:GLU:HG2	2.46	0.51
34:BM:78:LEU:C	34:BM:78:LEU:HD23	2.35	0.51
40:BS:32:ALA:HB1	40:BS:51:LEU:HD22	1.92	0.51
41:BT:39:THR:HB	41:BT:42:GLU:H	1.76	0.51
44:BW:39:GLN:HG2	44:BW:40:ARG:N	2.25	0.51
53:CA:512:U:O2'	53:CA:513:C:C5'	2.58	0.51
53:CA:597:G:N7	53:CA:598:U:C5	2.79	0.51
53:CA:733:G:O2'	53:CA:734:G:C5'	2.58	0.51
53:CA:1084:G:OP1	53:CA:1086:U:C5	2.63	0.51
53:CA:1147:C:O2'	53:CA:1148:U:C6	2.64	0.51
53:CA:1226:C:OP2	55:CM:94:LEU:HD22	2.09	0.51
53:CA:1308:U:H5	55:CM:97:ARG:NH1	2.08	0.51
53:CA:1383:C:H2'	53:CA:1384:C:H5'	1.93	0.51
53:CA:1494:G:H2'	53:CA:1495:U:O5'	2.10	0.51
5:CE:38:VAL:HG12	5:CE:39:GLY:H	1.75	0.51
6:CF:32:ALA:O	6:CF:33:GLU:HB2	2.09	0.51
9:CI:70:GLY:O	9:CI:73:GLY:N	2.43	0.51
10:CJ:10:LEU:HD23	10:CJ:98:VAL:HG22	1.93	0.51
11:CK:41:LEU:HD22	11:CK:76:TYR:CE2	2.46	0.51
19:CS:52:ASN:OD1	19:CS:57:VAL:HG13	2.11	0.51
21:CU:16:ARG:HA	21:CU:16:ARG:HE	1.76	0.51
22:DA:340:A:H2'	22:DA:341:C:C5'	2.41	0.51
22:DA:532:A:N1	22:DA:2020:A:H1'	2.25	0.51
22:DA:545:U:H6	22:DA:545:U:H3'	1.76	0.51
22:DA:657:U:H2'	22:DA:658:U:H6	1.75	0.51
22:DA:732:C:N4	22:DA:733:G:C6	2.79	0.51
22:DA:789:A:H5'	50:D2:4:THR:HG21	1.92	0.51
22:DA:1060:U:O4'	22:DA:1061:U:C2'	2.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1156:A:H5''	22:DA:1157:G:OP2	2.10	0.51
22:DA:1300:G:H5'	22:DA:1301:A:C2	2.45	0.51
22:DA:1550:C:C2'	22:DA:1551:A:H5'	2.41	0.51
22:DA:1605:C:C4'	22:DA:1610:A:C6	2.87	0.51
22:DA:2074:U:H2'	22:DA:2075:U:C6	2.46	0.51
22:DA:2217:G:O2'	22:DA:2218:G:O4'	2.25	0.51
22:DA:2567:G:H2'	22:DA:2568:U:C6	2.46	0.51
22:DA:2654:A:C4	22:DA:2656:U:N3	2.79	0.51
22:DA:2834:G:H1'	22:DA:2879:A:H61	1.73	0.51
22:DA:2866:U:H4'	22:DA:2867:G:O5'	2.10	0.51
57:DB:21:G:C2'	57:DB:22:U:H5'	2.41	0.51
57:DB:27:C:O2'	57:DB:28:C:H5'	2.11	0.51
26:DE:9:GLN:O	26:DE:9:GLN:HG3	2.11	0.51
28:DG:7:PRO:HB3	28:DG:48:THR:HB	1.92	0.51
35:DN:33:ILE:O	35:DN:34:ILE:HG13	2.10	0.51
37:DP:19:PHE:HE1	37:DP:58:PHE:CZ	2.29	0.51
38:DQ:40:LYS:CD	38:DQ:44:TYR:CE2	2.89	0.51
1:AA:66:A:C2	1:AA:67:C:C6	2.98	0.51
1:AA:322:C:O2'	20:AT:17:ARG:HG3	2.10	0.51
1:AA:481:G:O2'	1:AA:482:A:C8	2.64	0.51
1:AA:542:G:O2'	1:AA:543:U:H5'	2.09	0.51
1:AA:725:G:H2'	1:AA:726:C:C6	2.43	0.51
1:AA:966:G:H2'	1:AA:967:C:C6	2.45	0.51
1:AA:1160:G:C6	1:AA:1181:G:O6	2.63	0.51
1:AA:1295:U:H6	1:AA:1295:U:O5'	1.94	0.51
2:AB:57:ASN:C	2:AB:57:ASN:HD22	2.19	0.51
3:AC:54:ILE:C	3:AC:54:ILE:CD1	2.77	0.51
7:AG:13:PRO:HB2	7:AG:18:GLY:HA2	1.91	0.51
8:AH:30:LYS:HA	8:AH:30:LYS:CE	2.40	0.51
16:AP:10:GLY:O	16:AP:11:ALA:CB	2.59	0.51
22:BA:919:U:H6	22:BA:919:U:C5'	2.23	0.51
22:BA:962:G:P	62:BA:3352:HOH:O	2.68	0.51
22:BA:1135:C:H2'	22:BA:1137:G:OP2	2.10	0.51
22:BA:1254:A:H5''	22:BA:1255:U:C5'	2.40	0.51
22:BA:2148:G:O2'	22:BA:2149:U:C4'	2.58	0.51
22:BA:2508:G:H1'	22:BA:2554:U:HO2'	1.73	0.51
22:BA:2508:G:C6	22:BA:2582:G:O6	2.64	0.51
22:BA:2698:U:H2'	22:BA:2699:C:H6	1.73	0.51
22:BA:2836:U:H2'	22:BA:2837:A:C8	2.45	0.51
24:BC:57:HIS:ND1	24:BC:58:LYS:N	2.56	0.51
24:BC:252:LYS:HB2	24:BC:252:LYS:NZ	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:12:THR:HG23	25:BD:13:ARG:H	1.69	0.51
29:BH:101:ASP:C	29:BH:104:THR:HB	2.35	0.51
30:BI:135:MET:HG2	30:BI:137:LEU:HG	1.92	0.51
31:BJ:17:VAL:HA	31:BJ:55:ILE:O	2.10	0.51
33:BL:96:LYS:HG3	33:BL:101:ILE:HG22	1.92	0.51
37:BP:33:GLU:HB3	37:BP:36:LYS:H	1.76	0.51
45:BX:1:SER:O	45:BX:3:VAL:N	2.43	0.51
49:B1:8:ILE:H	49:B1:23:THR:HA	1.76	0.51
53:CA:166:U:OP2	53:CA:166:U:H6	1.92	0.51
53:CA:255:G:H4'	17:CQ:17:GLU:O	2.11	0.51
53:CA:518:C:H2'	53:CA:530:G:C8	2.45	0.51
53:CA:624:C:O2'	56:CP:10:GLY:HA2	2.09	0.51
53:CA:1073:U:C2	53:CA:1074:G:C8	2.99	0.51
53:CA:1279:G:H5''	10:CJ:9:ARG:NH2	2.12	0.51
53:CA:1416:G:H22	53:CA:1485:U:H1'	1.74	0.51
2:CB:56:LEU:HD22	2:CB:59:ILE:HD11	1.93	0.51
3:CC:113:LYS:HA	3:CC:184:ASN:HB3	1.93	0.51
8:CH:30:LYS:O	8:CH:33:VAL:N	2.43	0.51
8:CH:33:VAL:C	8:CH:35:ILE:H	2.18	0.51
9:CI:114:LYS:HD2	9:CI:120:ALA:O	2.09	0.51
12:CL:82:ARG:HB2	12:CL:97:VAL:HG12	1.91	0.51
55:CM:13:HIS:HA	55:CM:43:LYS:HG2	1.93	0.51
22:DA:70:G:H4'	22:DA:71:A:OP1	2.10	0.51
22:DA:301:G:C6	22:DA:317:G:C6	2.98	0.51
22:DA:335:C:O2'	22:DA:336:C:C6	2.34	0.51
22:DA:455:C:N3	22:DA:473:G:H5'	2.25	0.51
22:DA:477:A:O2'	22:DA:478:A:O5'	2.28	0.51
22:DA:478:A:C6	22:DA:480:A:C6	2.99	0.51
22:DA:492:A:O2'	22:DA:493:G:C5'	2.58	0.51
22:DA:575:A:O2'	22:DA:576:U:H6	1.94	0.51
22:DA:621:A:O2'	22:DA:622:G:O5'	2.28	0.51
22:DA:687:C:O2'	22:DA:688:U:H5'	2.11	0.51
22:DA:749:A:C4	22:DA:750:A:C8	2.98	0.51
22:DA:821:A:N7	22:DA:946:C:C4	2.79	0.51
22:DA:1062:G:C4	22:DA:1063:G:C8	2.98	0.51
22:DA:1324:G:H5''	22:DA:1325:U:H5''	1.93	0.51
22:DA:1383:A:C2	22:DA:1384:A:C5	2.99	0.51
22:DA:1782:U:O2'	22:DA:1783:A:C5'	2.58	0.51
22:DA:1819:A:OP1	24:DC:154:ALA:HA	2.11	0.51
22:DA:1935:G:H1'	22:DA:1964:G:C2	2.41	0.51
22:DA:2011:U:C2'	22:DA:2012:G:H5'	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2136:G:O6	22:DA:2156:G:C2	2.63	0.51
22:DA:2140:G:C6	22:DA:2152:G:C6	2.98	0.51
22:DA:2392:A:C8	22:DA:2429:G:N1	2.79	0.51
22:DA:2511:U:H2'	22:DA:2512:C:H5'	1.92	0.51
22:DA:2741:A:H2'	22:DA:2742:G:O4'	2.11	0.51
24:DC:184:GLU:O	24:DC:185:ALA:C	2.54	0.51
58:DF:30:VAL:CG1	58:DF:168:LEU:HD23	2.39	0.51
58:DF:39:VAL:CB	58:DF:49:LEU:HG	2.40	0.51
31:DJ:122:LEU:C	31:DJ:123:LYS:HD2	2.36	0.51
32:DK:104:THR:OG1	32:DK:106:GLU:HB2	2.11	0.51
41:DT:64:LYS:HD2	41:DT:64:LYS:N	2.25	0.51
46:DY:22:LEU:HG	46:DY:23:ARG:H	1.74	0.51
1:AA:52:C:H2'	1:AA:53:A:H8	1.74	0.51
1:AA:217:C:O2'	1:AA:218:U:H5'	2.09	0.51
1:AA:374:A:H2'	1:AA:375:U:H6	1.76	0.51
1:AA:465:A:H2'	1:AA:466:A:O4'	2.10	0.51
1:AA:1080:A:OP1	5:AE:51:LYS:HE3	2.11	0.51
1:AA:1241:G:C2	1:AA:1242:G:C5	2.99	0.51
1:AA:1526:G:OP2	21:AU:38:GLU:HB2	2.10	0.51
3:AC:5:HIS:CD2	3:AC:7:ASN:HB3	2.46	0.51
3:AC:76:ILE:HD11	3:AC:102:ILE:CG1	2.22	0.51
6:AF:9:MET:HE3	18:AR:64:LEU:HD22	1.92	0.51
8:AH:64:TYR:CD1	8:AH:64:TYR:N	2.78	0.51
13:AM:2:ARG:HA	13:AM:7:ASN:O	2.11	0.51
22:BA:12:U:H2'	22:BA:13:A:O5'	2.11	0.51
22:BA:876:C:O2'	22:BA:877:A:H5'	2.10	0.51
22:BA:1042:G:C2'	22:BA:1043:C:H5'	2.41	0.51
22:BA:1277:G:C4'	35:BN:20:MET:HE2	2.40	0.51
22:BA:1613:G:C2	22:BA:1619:G:C5	2.99	0.51
22:BA:1858:A:OP2	22:BA:1858:A:H8	1.94	0.51
24:BC:141:HIS:HE2	24:BC:193:GLU:C	2.19	0.51
25:BD:151:THR:HB	25:BD:152:PRO:HD3	1.93	0.51
27:BF:107:VAL:N	27:BF:108:PRO:HD2	2.25	0.51
30:BI:89:SER:OG	30:BI:135:MET:HA	2.11	0.51
32:BK:49:ARG:O	32:BK:50:GLY:O	2.29	0.51
33:BL:65:GLY:O	33:BL:66:PHE:CB	2.57	0.51
33:BL:110:VAL:O	33:BL:111:ILE:CB	2.43	0.51
34:BM:73:ILE:HG21	34:BM:91:TYR:CE1	2.46	0.51
36:BO:39:VAL:HG12	36:BO:39:VAL:O	2.10	0.51
40:BS:65:ASP:C	40:BS:67:ASP:H	2.19	0.51
41:BT:39:THR:HG22	41:BT:42:GLU:H	1.74	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BV:6:ALA:HB2	43:BV:42:LEU:CD2	2.41	0.51
45:BX:71:ARG:HE	45:BX:77:TYR:HE2	1.59	0.51
49:B1:25:ASN:ND2	49:B1:28:THR:HG23	2.26	0.51
50:B2:12:ARG:HG3	50:B2:13:ASN:HD22	1.75	0.51
53:CA:5:U:H4'	53:CA:6:G:H5''	1.93	0.51
53:CA:106:C:O2	53:CA:379:C:H4'	2.11	0.51
53:CA:374:A:H2'	53:CA:375:U:H6	1.73	0.51
53:CA:705:G:H2'	53:CA:706:A:C8	2.46	0.51
53:CA:756:C:O2'	53:CA:757:U:H5'	2.10	0.51
53:CA:819:A:H4'	53:CA:820:U:OP2	2.10	0.51
53:CA:876:C:O2'	8:CH:11:THR:HG21	2.11	0.51
53:CA:918:A:H2'	53:CA:919:A:C8	2.46	0.51
53:CA:988:G:H2'	53:CA:989:U:H5'	1.91	0.51
53:CA:1014:A:H5'	19:CS:17:LYS:HE3	1.93	0.51
53:CA:1026:G:H22	53:CA:1036:A:H61	1.58	0.51
53:CA:1097:C:H2'	53:CA:1098:C:H6	1.72	0.51
53:CA:1114:C:O2	14:CN:99:SER:HB3	2.11	0.51
53:CA:1200:C:HO2'	53:CA:1201:A:P	2.32	0.51
2:CB:93:HIS:HB2	2:CB:146:SER:HA	1.93	0.51
4:CD:190:LEU:C	4:CD:190:LEU:CD2	2.83	0.51
6:CF:2:ARG:HG2	6:CF:4:TYR:CZ	2.46	0.51
8:CH:75:GLN:O	8:CH:126:CYS:CB	2.58	0.51
10:CJ:48:ARG:HB3	14:CN:100:TRP:HZ2	1.75	0.51
55:CM:23:GLY:HA3	55:CM:64:VAL:HG13	1.93	0.51
55:CM:81:ASP:C	55:CM:82:LEU:HD12	2.35	0.51
55:CM:97:ARG:HG2	55:CM:97:ARG:O	2.09	0.51
14:CN:62:ARG:HE	14:CN:69:PRO:HA	1.75	0.51
19:CS:50:VAL:CG2	19:CS:74:ALA:HB2	2.41	0.51
19:CS:79:TYR:CD1	19:CS:80:ARG:HD2	2.46	0.51
21:CU:10:PRO:O	21:CU:11:PHE:HB3	2.09	0.51
22:DA:14:A:C5	22:DA:526:A:C2	2.99	0.51
22:DA:100:U:OP1	22:DA:100:U:C6	2.64	0.51
22:DA:188:G:C2'	22:DA:189:G:H5'	2.40	0.51
22:DA:460:A:N6	22:DA:470:A:C8	2.78	0.51
22:DA:533:G:O5'	38:DQ:23:TYR:CD2	2.64	0.51
22:DA:782:A:OP1	22:DA:782:A:C8	2.64	0.51
22:DA:1062:G:N2	22:DA:1077:A:H2	2.09	0.51
22:DA:1083:U:H1'	22:DA:1086:A:C2	2.46	0.51
22:DA:1272:A:C2	22:DA:1618:A:C2	2.99	0.51
22:DA:1373:A:H2'	22:DA:1374:G:O4'	2.11	0.51
22:DA:1411:U:H2'	22:DA:1412:U:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1425:G:H2'	22:DA:1426:G:O4'	2.10	0.51
22:DA:2712:C:C2	22:DA:2715:C:OP1	2.64	0.51
22:DA:2751:G:H4'	28:DG:3:VAL:CG1	2.40	0.51
22:DA:2880:C:O2'	22:DA:2881:U:H5'	2.11	0.51
24:DC:77:VAL:HA	24:DC:92:LEU:O	2.10	0.51
58:DF:65:LEU:H	58:DF:65:LEU:CD2	2.21	0.51
29:DH:41:LYS:CA	29:DH:44:ILE:HG12	2.34	0.51
29:DH:53:GLU:C	29:DH:55:GLU:H	2.18	0.51
29:DH:99:ILE:HG22	29:DH:100:ALA:N	2.26	0.51
29:DH:147:VAL:O	29:DH:148:ALA:HB3	2.10	0.51
30:DI:52:LEU:HD12	30:DI:53:PRO:CD	2.41	0.51
32:DK:92:GLU:O	32:DK:93:GLN:C	2.54	0.51
33:DL:50:PHE:CE2	33:DL:53:GLY:N	2.79	0.51
36:DO:68:LYS:HB2	36:DO:68:LYS:NZ	2.26	0.51
39:DR:37:GLU:HB2	39:DR:53:PHE:CG	2.45	0.51
40:DS:49:LYS:NZ	40:DS:49:LYS:CB	2.70	0.51
41:DT:10:VAL:HG23	41:DT:11:LEU:N	2.24	0.51
41:DT:39:THR:HG21	41:DT:42:GLU:CG	2.41	0.51
42:DU:33:VAL:O	42:DU:34:ILE:CG1	2.49	0.51
43:DV:30:ILE:HA	43:DV:91:PHE:O	2.11	0.51
45:DX:3:VAL:O	45:DX:3:VAL:HG23	2.09	0.51
45:DX:32:LEU:HD22	45:DX:32:LEU:N	2.26	0.51
46:DY:49:ASP:O	46:DY:52:ARG:HB2	2.11	0.51
50:D2:46:LYS:HD2	50:D2:46:LYS:N	2.25	0.51
1:AA:35:G:H2'	1:AA:36:C:C6	2.46	0.51
1:AA:433:G:H2'	1:AA:434:U:C5'	2.38	0.51
1:AA:579:A:H2'	1:AA:580:C:H6	1.76	0.51
1:AA:858:G:H2'	1:AA:859:G:H5'	1.92	0.51
2:AB:71:THR:HG23	2:AB:93:HIS:C	2.35	0.51
2:AB:123:GLY:O	2:AB:125:PHE:HD2	1.94	0.51
2:AB:130:LYS:HA	2:AB:130:LYS:NZ	2.25	0.51
3:AC:6:PRO:CG	3:AC:183:TYR:CG	2.93	0.51
5:AE:152:VAL:O	5:AE:155:LYS:NZ	2.44	0.51
6:AF:39:LEU:O	6:AF:40:GLU:HG2	2.11	0.51
7:AG:96:ASN:O	7:AG:100:MET:HG3	2.10	0.51
11:AK:110:THR:HG22	21:AU:4:LYS:HB2	1.93	0.51
18:AR:59:LYS:HA	18:AR:62:ARG:HD2	1.92	0.51
21:AU:38:GLU:OE2	21:AU:41:THR:HG21	2.10	0.51
22:BA:535:G:H2'	22:BA:536:G:H5'	1.92	0.51
22:BA:740:C:O5'	22:BA:740:C:H6	1.94	0.51
22:BA:958:U:C2	23:BB:89:U:H1'	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:994:C:H1'	39:BR:10:LYS:HZ3	1.73	0.51
22:BA:1045:C:C3'	22:BA:1046:A:H5'	2.41	0.51
22:BA:1057:A:N7	22:BA:1086:A:H2'	2.25	0.51
22:BA:1103:A:H2'	22:BA:1104:C:H5'	1.92	0.51
22:BA:1446:C:H2'	22:BA:1447:C:H6	1.76	0.51
22:BA:1568:G:OP1	24:BC:62:ARG:NH1	2.44	0.51
22:BA:2689:U:C4'	22:BA:2690:U:OP2	2.58	0.51
24:BC:161:VAL:CG1	24:BC:173:LEU:HG	2.41	0.51
26:BE:143:LEU:HD13	26:BE:146:VAL:HG11	1.93	0.51
26:BE:152:GLU:HA	26:BE:152:GLU:OE2	2.10	0.51
26:BE:160:ALA:O	26:BE:161:ALA:CB	2.59	0.51
28:BG:96:ALA:O	28:BG:97:VAL:HB	2.10	0.51
29:BH:90:LEU:HD22	29:BH:123:ARG:HA	1.93	0.51
33:BL:28:GLY:O	33:BL:29:LYS:O	2.28	0.51
33:BL:92:LEU:HD21	33:BL:124:GLY:CA	2.40	0.51
35:BN:84:GLY:N	35:BN:85:PRO:HD2	2.25	0.51
37:BP:30:TRP:CH2	37:BP:39:LEU:HD11	2.46	0.51
37:BP:77:SER:HG	37:BP:79:VAL:HG13	1.76	0.51
37:BP:95:LYS:HG2	37:BP:97:TYR:CE1	2.46	0.51
53:CA:78:A:H2'	53:CA:79:G:H8	1.70	0.51
53:CA:413:G:C6	4:CD:32:LYS:HE3	2.46	0.51
53:CA:522:C:O2'	53:CA:523:A:H5'	2.11	0.51
53:CA:543:U:C2'	53:CA:544:G:H5'	2.41	0.51
53:CA:1165:U:H2'	53:CA:1166:G:H5'	1.93	0.51
53:CA:1288:A:O2'	53:CA:1289:A:H8	1.93	0.51
53:CA:1299:A:N3	53:CA:1299:A:C2'	2.56	0.51
53:CA:1348:U:O2'	53:CA:1349:A:C5'	2.58	0.51
53:CA:1484:C:H2'	53:CA:1485:U:O4'	2.11	0.51
2:CB:9:LEU:O	2:CB:10:LYS:HB3	2.11	0.51
3:CC:24:ASN:O	3:CC:28:PHE:HB2	2.11	0.51
6:CF:26:THR:HG22	6:CF:36:ILE:HD13	1.91	0.51
6:CF:81:ASN:O	6:CF:82:ASP:C	2.53	0.51
8:CH:41:GLU:OE2	8:CH:41:GLU:HA	2.10	0.51
10:CJ:52:LEU:CD2	10:CJ:59:LYS:HA	2.39	0.51
12:CL:85:ARG:HA	12:CL:93:ARG:HA	1.93	0.51
18:CR:33:THR:C	18:CR:35:SER:H	2.19	0.51
20:CT:11:ILE:C	20:CT:13:SER:N	2.69	0.51
20:CT:32:LYS:O	20:CT:36:ALA:HB3	2.11	0.51
20:CT:73:ARG:CG	20:CT:73:ARG:NH1	2.43	0.51
22:DA:40:U:C4	22:DA:41:C:C4	2.98	0.51
22:DA:86:G:O2'	22:DA:87:U:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:111:A:N1	22:DA:112:U:C2	2.79	0.51
22:DA:740:C:C5	22:DA:1981:A:N1	2.79	0.51
22:DA:785:G:O2'	22:DA:1779:U:C5'	2.59	0.51
22:DA:1038:G:N1	22:DA:1118:C:C4	2.79	0.51
22:DA:1312:U:O2'	22:DA:1314:C:N4	2.44	0.51
22:DA:1439:A:H1'	22:DA:1553:A:H61	1.72	0.51
22:DA:1440:U:O2'	22:DA:1441:G:C5'	2.54	0.51
22:DA:1445:G:C2'	22:DA:1446:C:H5'	2.41	0.51
22:DA:1476:U:O2'	22:DA:1477:A:H5'	2.11	0.51
22:DA:1734:G:N3	22:DA:1735:A:C8	2.79	0.51
22:DA:1735:A:C2	22:DA:1736:U:C2	2.98	0.51
22:DA:1739:A:C2	22:DA:1740:G:C4	2.99	0.51
22:DA:2287:A:C6	22:DA:2289:G:C5	2.98	0.51
22:DA:2690:U:H3'	22:DA:2691:C:H5'	1.93	0.51
22:DA:2875:C:O2'	22:DA:2876:G:C8	2.33	0.51
24:DC:38:LYS:HE2	24:DC:55:GLY:H	1.76	0.51
24:DC:86:ARG:HB3	24:DC:86:ARG:CZ	2.41	0.51
24:DC:161:VAL:HG11	24:DC:173:LEU:HB2	1.92	0.51
25:DD:9:VAL:O	37:DP:4:ILE:HD11	2.10	0.51
26:DE:45:ALA:O	26:DE:46:GLN:HB2	2.10	0.51
31:DJ:77:HIS:CE1	31:DJ:83:GLY:HA3	2.46	0.51
32:DK:20:MET:HE2	32:DK:44:LYS:HE2	1.91	0.51
38:DQ:6:GLY:C	38:DQ:8:ILE:N	2.69	0.51
40:DS:25:ARG:HH11	40:DS:25:ARG:CB	2.24	0.51
41:DT:20:ALA:CB	41:DT:31:VAL:HG21	2.35	0.51
50:D2:41:ARG:HB3	50:D2:44:VAL:CG1	2.40	0.51
1:AA:91:U:C2'	1:AA:92:U:O4'	2.59	0.51
1:AA:184:G:H2'	1:AA:185:U:C6	2.46	0.51
1:AA:290:C:O2'	1:AA:291:U:H5'	2.11	0.51
1:AA:461:A:N3	1:AA:461:A:C3'	2.73	0.51
1:AA:532:A:N7	3:AC:192:TYR:HB3	2.26	0.51
1:AA:614:C:C2'	1:AA:615:G:O5'	2.59	0.51
1:AA:778:G:C5	1:AA:779:C:C5	2.99	0.51
1:AA:1005:A:C2	1:AA:1006:G:H1'	2.46	0.51
1:AA:1322:C:O2'	1:AA:1323:G:P	2.68	0.51
3:AC:21:TRP:CZ3	3:AC:23:ALA:HB3	2.46	0.51
3:AC:138:GLN:C	3:AC:140:ALA:H	2.19	0.51
4:AD:2:ARG:CZ	4:AD:114:ARG:CD	2.89	0.51
6:AF:41:ASP:C	6:AF:43:GLY:H	2.18	0.51
12:AL:41:PRO:HA	12:AL:88:ASP:O	2.11	0.51
13:AM:24:VAL:HG23	13:AM:24:VAL:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:16:ALA:O	20:AT:17:ARG:C	2.54	0.51
22:BA:29:U:H2'	22:BA:30:G:C8	2.46	0.51
22:BA:272:A:O2'	22:BA:273:G:O5'	2.29	0.51
22:BA:508:A:H4'	22:BA:509:C:OP2	2.11	0.51
22:BA:763:G:O2'	22:BA:764:A:H3'	2.11	0.51
22:BA:958:U:C5'	34:BM:14:LYS:HZ1	2.24	0.51
22:BA:976:G:H2'	22:BA:976:G:N3	2.26	0.51
22:BA:1850:G:C5	22:BA:1851:U:C5	2.98	0.51
22:BA:2107:G:O6	22:BA:2183:A:C6	2.64	0.51
22:BA:2217:G:C2'	22:BA:2218:G:H5'	2.40	0.51
22:BA:2848:G:O2'	22:BA:2867:G:N2	2.43	0.51
24:BC:198:GLU:O	24:BC:199:HIS:C	2.54	0.51
29:BH:29:PHE:CD2	29:BH:30:LEU:HD23	2.45	0.51
29:BH:66:ASN:C	29:BH:68:ARG:H	2.18	0.51
32:BK:116:ILE:HD12	32:BK:116:ILE:C	2.36	0.51
36:BO:117:PHE:CD1	36:BO:117:PHE:O	2.64	0.51
39:BR:27:ILE:N	39:BR:27:ILE:CD1	2.73	0.51
45:BX:46:VAL:HG11	45:BX:77:TYR:CD1	2.45	0.51
53:CA:9:G:O2'	53:CA:10:A:H5'	2.11	0.51
53:CA:104:G:O2'	53:CA:105:G:H5'	2.10	0.51
53:CA:141:G:N2	53:CA:223:A:C4	2.79	0.51
53:CA:286:C:H2'	53:CA:287:U:H6	1.76	0.51
53:CA:437:U:H2'	53:CA:438:U:O5'	2.11	0.51
53:CA:499:A:H4'	53:CA:500:G:O5'	2.08	0.51
53:CA:520:A:OP1	12:CL:48:LEU:HG	2.11	0.51
53:CA:683:G:C6	53:CA:708:C:N3	2.79	0.51
53:CA:771:G:O2'	53:CA:772:U:H5'	2.10	0.51
53:CA:920:U:H2'	53:CA:921:U:H6	1.74	0.51
53:CA:1179:A:C2'	53:CA:1180:A:H5'	2.41	0.51
2:CB:9:LEU:HG	2:CB:10:LYS:H	1.76	0.51
2:CB:84:LEU:C	2:CB:84:LEU:HD12	2.36	0.51
2:CB:209:VAL:CG2	2:CB:210:THR:N	2.74	0.51
3:CC:126:ARG:HA	3:CC:126:ARG:NE	2.20	0.51
4:CD:20:LEU:O	4:CD:21:LYS:C	2.51	0.51
5:CE:14:LEU:HD13	5:CE:36:THR:HG22	1.91	0.51
5:CE:131:ASN:C	5:CE:135:VAL:HG23	2.36	0.51
9:CI:27:ILE:O	9:CI:33:SER:HA	2.11	0.51
12:CL:42:LYS:HD2	12:CL:43:LYS:NZ	2.26	0.51
14:CN:94:GLY:O	14:CN:95:LEU:C	2.53	0.51
21:CU:18:PHE:C	21:CU:19:LYS:NZ	2.69	0.51
22:DA:193:U:O2'	22:DA:194:G:H5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:237:C:N3	22:DA:238:C:C5	2.79	0.51
22:DA:432:A:O2'	22:DA:433:C:H5'	2.11	0.51
22:DA:475:C:O2'	22:DA:476:G:C5'	2.59	0.51
22:DA:482:A:N6	22:DA:506:G:N9	2.58	0.51
22:DA:616:A:N3	22:DA:617:G:C8	2.79	0.51
22:DA:1142:A:C8	22:DA:1144:A:C5	2.99	0.51
22:DA:1206:G:O2'	22:DA:1207:C:H5'	2.11	0.51
22:DA:1519:G:N1	22:DA:1520:U:C2	2.78	0.51
22:DA:1567:G:H5''	24:DC:84:PRO:CG	2.40	0.51
22:DA:1654:A:O2'	22:DA:1655:A:H8	1.92	0.51
22:DA:1673:G:O2'	22:DA:1674:G:H5'	2.11	0.51
22:DA:1857:G:C1'	22:DA:1884:G:H22	2.15	0.51
22:DA:2010:G:OP1	40:DS:41:LYS:HD3	2.11	0.51
22:DA:2093:G:H4'	29:DH:24:GLY:HA3	1.93	0.51
22:DA:2094:A:O2'	22:DA:2095:A:O4'	2.28	0.51
22:DA:2234:G:C6	22:DA:2235:G:C5	2.98	0.51
22:DA:2502:G:H5'	22:DA:2503:A:H5''	1.93	0.51
22:DA:2675:A:H2'	22:DA:2676:C:O4'	2.10	0.51
22:DA:2808:G:O2'	22:DA:2809:A:C8	2.64	0.51
57:DB:17:C:C2'	57:DB:18:G:H5'	2.40	0.51
24:DC:75:ALA:HB1	24:DC:93:VAL:HG22	1.93	0.51
58:DF:1:ALA:HB2	58:DF:93:GLU:O	2.10	0.51
58:DF:3:LEU:HG	58:DF:100:GLU:CD	2.35	0.51
58:DF:8:LYS:HB2	58:DF:8:LYS:HZ2	1.75	0.51
29:DH:61:VAL:CG1	29:DH:62:LEU:N	2.74	0.51
30:DI:69:VAL:O	30:DI:69:VAL:HG13	2.09	0.51
32:DK:70:ARG:HB3	32:DK:76:VAL:CG2	2.21	0.51
33:DL:116:VAL:HG13	33:DL:117:THR:N	2.26	0.51
35:DN:36:THR:HG23	35:DN:41:ALA:HB2	1.93	0.51
38:DQ:15:LYS:HD2	38:DQ:15:LYS:C	2.35	0.51
38:DQ:91:ARG:CZ	39:DR:11:GLN:H	2.23	0.51
44:DW:44:PHE:CE2	44:DW:76:ARG:NE	2.78	0.51
45:DX:19:HIS:C	45:DX:21:LEU:N	2.67	0.51
1:AA:375:U:C4'	16:AP:17:TYR:HE2	2.20	0.51
1:AA:483:C:O2	16:AP:13:LYS:NZ	2.44	0.51
1:AA:613:C:H2'	1:AA:614:C:C6	2.46	0.51
1:AA:613:C:O2'	1:AA:614:C:H5'	2.11	0.51
2:AB:30:ILE:HD11	2:AB:38:HIS:CG	2.46	0.51
3:AC:179:ALA:HB1	3:AC:202:PHE:HE1	1.76	0.51
4:AD:37:PRO:HD2	4:AD:41:GLY:CA	2.39	0.51
4:AD:160:LEU:HD22	4:AD:161:ALA:N	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AH:17:GLN:NE2	8:AH:69:ALA:HB1	2.26	0.51
13:AM:44:ILE:HD12	13:AM:44:ILE:N	2.26	0.51
15:AO:68:TYR:HA	15:AO:71:ARG:CZ	2.40	0.51
16:AP:12:LYS:O	16:AP:13:LYS:CB	2.59	0.51
22:BA:301:G:O2'	22:BA:302:C:H5''	2.11	0.51
22:BA:540:C:O2'	22:BA:541:A:H5'	2.11	0.51
22:BA:697:G:H2'	22:BA:698:C:C6	2.45	0.51
22:BA:869:G:H4'	34:BM:8:LYS:HE2	1.93	0.51
22:BA:1927:A:C6	22:BA:1928:A:C6	2.99	0.51
22:BA:2180:U:C2'	22:BA:2181:U:H5	2.22	0.51
22:BA:2870:C:C6	22:BA:2871:U:C5	2.98	0.51
23:BB:41:G:H3'	23:BB:42:C:H5''	1.92	0.51
23:BB:46:A:C5	23:BB:47:C:C4	2.99	0.51
25:BD:53:GLY:HA3	25:BD:77:ARG:H	1.75	0.51
27:BF:104:THR:CG2	27:BF:105:ILE:HG23	2.36	0.51
27:BF:105:ILE:HA	27:BF:108:PRO:HG2	1.92	0.51
28:BG:82:PHE:CZ	28:BG:137:LYS:HB2	2.46	0.51
28:BG:84:LYS:HG3	28:BG:132:LEU:CA	2.35	0.51
28:BG:154:GLU:OE1	28:BG:157:LYS:HB2	2.11	0.51
30:BI:32:VAL:HG13	30:BI:66:PHE:CE2	2.46	0.51
31:BJ:65:THR:HG22	31:BJ:68:LYS:CE	2.38	0.51
32:BK:109:SER:HB3	32:BK:111:LYS:HE3	1.93	0.51
33:BL:14:LYS:HG3	33:BL:15:ALA:N	2.25	0.51
34:BM:133:LYS:NZ	34:BM:133:LYS:CB	2.74	0.51
35:BN:20:MET:CG	35:BN:21:PHE:N	2.74	0.51
36:BO:105:ALA:O	36:BO:107:ALA:N	2.44	0.51
37:BP:53:GLY:O	37:BP:55:HIS:N	2.43	0.51
39:BR:49:ILE:O	39:BR:51:VAL:O	2.27	0.51
41:BT:19:LYS:O	41:BT:23:ALA:CB	2.59	0.51
45:BX:70:LEU:O	45:BX:71:ARG:C	2.53	0.51
53:CA:355:C:C4	53:CA:356:A:N7	2.79	0.51
53:CA:615:G:H2'	53:CA:616:G:C8	2.45	0.51
53:CA:652:U:O2'	53:CA:653:U:O5'	2.29	0.51
53:CA:765:G:O6	53:CA:811:C:C5	2.64	0.51
53:CA:824:G:H1'	8:CH:1:SER:N	2.25	0.51
53:CA:940:C:C5'	54:CG:101:ARG:NH2	2.69	0.51
53:CA:1090:U:C2	53:CA:1091:U:C5	2.98	0.51
2:CB:31:PHE:HB2	2:CB:41:ASN:HB2	1.92	0.51
3:CC:149:LYS:CG	3:CC:168:ARG:HB2	2.39	0.51
4:CD:32:LYS:HB3	4:CD:35:GLN:OE1	2.11	0.51
4:CD:84:ASN:OD1	5:CE:101:GLY:HA2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:4:ARG:CG	54:CG:5:VAL:N	2.74	0.51
8:CH:24:VAL:HG22	8:CH:25:THR:N	2.26	0.51
55:CM:11:HIS:CE1	55:CM:43:LYS:HD2	2.45	0.51
21:CU:33:ARG:HH22	21:CU:34:ARG:HH11	1.59	0.51
22:DA:95:A:C2'	22:DA:96:C:H5''	2.39	0.51
22:DA:249:C:O2	22:DA:249:C:C2'	2.59	0.51
22:DA:867:C:O2'	22:DA:868:U:O5'	2.28	0.51
22:DA:980:A:C4	22:DA:1136:G:O4'	2.64	0.51
22:DA:1181:U:O2'	22:DA:1182:G:H5'	2.11	0.51
22:DA:1695:G:HO2'	22:DA:1696:G:P	2.32	0.51
22:DA:2209:G:C6	22:DA:2210:U:O4	2.63	0.51
22:DA:2283:C:C2'	22:DA:2284:A:H5'	2.41	0.51
22:DA:2632:A:O2'	22:DA:2633:G:H5'	2.10	0.51
22:DA:2674:G:H4'	32:DK:30:ARG:CD	2.41	0.51
57:DB:18:G:C2	57:DB:19:C:C2	2.99	0.51
57:DB:27:C:H2'	57:DB:28:C:C6	2.45	0.51
25:DD:125:TRP:CG	25:DD:160:LYS:HB3	2.46	0.51
26:DE:76:PRO:HA	26:DE:82:GLY:O	2.11	0.51
58:DF:129:MET:CE	58:DF:174:PHE:CZ	2.89	0.51
32:DK:2:ILE:HB	32:DK:33:ALA:HB3	1.93	0.51
33:DL:62:PRO:O	51:D3:12:ARG:CB	2.56	0.51
35:DN:83:LEU:HD11	35:DN:86:ARG:HH21	1.75	0.51
36:DO:24:THR:HG22	36:DO:42:PRO:HD3	1.92	0.51
37:DP:102:ARG:HD2	37:DP:106:ALA:O	2.11	0.51
41:DT:32:LEU:HD23	41:DT:32:LEU:N	2.26	0.51
43:DV:29:ILE:HD12	43:DV:29:ILE:O	2.11	0.51
50:D2:28:ARG:C	50:D2:30:VAL:N	2.69	0.51
1:AA:76:G:N1	1:AA:95:C:N4	2.58	0.51
1:AA:143:A:N3	1:AA:143:A:H2'	2.25	0.51
1:AA:678:U:H2'	1:AA:679:C:O4'	2.11	0.51
1:AA:696:A:O2'	1:AA:697:U:H5'	2.11	0.51
1:AA:1171:A:H2'	1:AA:1172:C:C6	2.46	0.51
2:AB:53:LEU:CD2	2:AB:53:LEU:H	2.24	0.51
2:AB:53:LEU:HD21	2:AB:212:TYR:OH	2.10	0.51
3:AC:8:GLY:HA3	14:AN:88:MET:SD	2.50	0.51
9:AI:57:VAL:C	9:AI:58:GLU:HG2	2.36	0.51
11:AK:27:ASN:O	11:AK:56:LYS:HE3	2.10	0.51
11:AK:125:LYS:O	11:AK:126:ARG:HB2	2.11	0.51
14:AN:20:PHE:C	14:AN:22:LYS:H	2.19	0.51
20:AT:33:LYS:HA	20:AT:33:LYS:CE	2.41	0.51
22:BA:1507:C:N3	22:BA:1508:A:C2	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1848:A:O2'	22:BA:1849:G:C5'	2.58	0.51
22:BA:2507:C:H3'	22:BA:2508:G:C5'	2.40	0.51
22:BA:2589:A:H2'	22:BA:2590:A:C8	2.45	0.51
22:BA:2780:G:H4'	22:BA:2781:A:OP2	2.11	0.51
22:BA:2794:C:O2'	22:BA:2795:C:H5'	2.11	0.51
24:BC:33:LEU:HD21	24:BC:62:ARG:CD	2.39	0.51
26:BE:119:ILE:O	26:BE:119:ILE:CG1	2.59	0.51
31:BJ:36:LEU:O	31:BJ:118:MET:HE2	2.11	0.51
34:BM:64:TRP:HZ3	34:BM:106:ASP:HB2	1.76	0.51
34:BM:108:VAL:HG13	34:BM:109:PRO:CD	2.35	0.51
35:BN:73:ASN:C	35:BN:76:VAL:HG12	2.36	0.51
37:BP:50:ARG:NH2	37:BP:51:ASN:OD1	2.44	0.51
39:BR:46:GLU:C	39:BR:46:GLU:CD	2.78	0.51
42:BU:17:ASP:O	42:BU:18:LYS:C	2.54	0.51
45:BX:5:GLN:HE21	45:BX:49:ARG:N	2.07	0.51
45:BX:70:LEU:O	45:BX:73:ARG:N	2.44	0.51
51:B3:30:HIS:O	51:B3:31:ILE:C	2.54	0.51
53:CA:68:G:C5'	53:CA:171:A:H1'	2.39	0.51
53:CA:757:U:O2'	53:CA:879:C:H1'	2.11	0.51
53:CA:922:G:O2'	53:CA:1398:A:N1	2.43	0.51
53:CA:1082:A:O2'	53:CA:1083:U:H5'	2.11	0.51
53:CA:1167:A:C2'	53:CA:1168:U:OP1	2.59	0.51
53:CA:1504:G:H3'	53:CA:1505:G:C5'	2.40	0.51
2:CB:114:LYS:C	2:CB:117:GLU:HG2	2.35	0.51
5:CE:33:THR:O	5:CE:33:THR:HG23	2.09	0.51
11:CK:21:HIS:HD2	11:CK:34:THR:CG2	2.24	0.51
12:CL:86:VAL:HG11	12:CL:89:LEU:HD23	1.93	0.51
56:CP:20:VAL:HG21	56:CP:32:PHE:HB2	1.93	0.51
17:CQ:3:LYS:NZ	17:CQ:6:THR:CG2	2.68	0.51
20:CT:61:ALA:HA	20:CT:67:HIS:HA	1.91	0.51
21:CU:37:TYR:O	21:CU:37:TYR:HD2	1.94	0.51
22:DA:40:U:C4	22:DA:41:C:N4	2.79	0.51
22:DA:185:G:H2'	22:DA:186:G:H8	1.74	0.51
22:DA:223:A:O2'	22:DA:408:G:N3	2.43	0.51
22:DA:321:U:H1'	26:DE:159:LEU:CD1	2.40	0.51
22:DA:415:A:N1	22:DA:2409:G:C6	2.79	0.51
22:DA:417:C:O2'	22:DA:418:C:H5'	2.11	0.51
22:DA:564:C:H2'	22:DA:565:C:H5'	1.93	0.51
22:DA:575:A:O2'	22:DA:576:U:C5'	2.57	0.51
22:DA:818:G:H4'	22:DA:838:C:O3'	2.11	0.51
22:DA:819:A:OP2	22:DA:1187:G:N2	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:973:A:OP1	22:DA:973:A:H8	1.94	0.51
22:DA:1075:C:O2'	22:DA:1076:C:C6	2.64	0.51
22:DA:1613:G:C2	22:DA:1617:C:C2	2.99	0.51
22:DA:1654:A:H1'	25:DD:118:PHE:HB3	1.91	0.51
22:DA:1735:A:O2'	22:DA:1736:U:H6	1.93	0.51
22:DA:2750:A:O2'	22:DA:2752:C:N4	2.40	0.51
26:DE:175:ILE:HD11	26:DE:180:LEU:HD11	1.93	0.51
31:DJ:35:ARG:HA	31:DJ:40:HIS:CD2	2.46	0.51
35:DN:67:PHE:HE2	35:DN:73:ASN:HD21	1.58	0.51
40:DS:36:LEU:C	40:DS:38:TYR:H	2.19	0.51
43:DV:4:ILE:HD12	43:DV:63:ILE:HD11	1.93	0.51
43:DV:41:GLU:HG2	43:DV:42:LEU:N	2.25	0.51
43:DV:69:GLU:HG2	43:DV:70:ILE:N	2.26	0.51
44:DW:65:LYS:HE2	44:DW:84:GLU:HA	1.93	0.51
45:DX:57:VAL:CG1	45:DX:58:ILE:N	2.74	0.51
46:DY:59:GLU:C	46:DY:61:ALA:H	2.19	0.51
1:AA:56:U:H2'	1:AA:57:G:H8	1.71	0.50
1:AA:173:U:C2	1:AA:197:A:N1	2.79	0.50
1:AA:363:A:O2'	1:AA:364:A:H5'	2.11	0.50
1:AA:1168:U:C6	1:AA:1168:U:OP1	2.64	0.50
1:AA:1398:A:H5''	1:AA:1398:A:C8	2.43	0.50
1:AA:1453:G:H2'	1:AA:1454:G:O4'	2.11	0.50
2:AB:9:LEU:HB2	2:AB:42:LEU:HD13	1.93	0.50
2:AB:45:THR:HG23	2:AB:200:PRO:HG2	1.93	0.50
4:AD:187:ARG:HH12	4:AD:190:LEU:HD12	1.76	0.50
4:AD:191:SER:HA	4:AD:194:ILE:HD11	1.93	0.50
6:AF:10:VAL:CG1	6:AF:11:HIS:N	2.75	0.50
7:AG:23:ALA:O	7:AG:26:VAL:CG2	2.57	0.50
10:AJ:20:GLN:HA	10:AJ:20:GLN:NE2	2.26	0.50
11:AK:111:ASP:OD1	11:AK:111:ASP:C	2.54	0.50
11:AK:124:LYS:O	21:AU:33:ARG:CZ	2.59	0.50
14:AN:25:GLU:HG3	14:AN:26:LEU:HD12	1.93	0.50
21:AU:3:ILE:HA	21:AU:19:LYS:HZ1	1.70	0.50
22:BA:536:G:H2'	22:BA:537:G:O5'	2.11	0.50
22:BA:999:U:C5	22:BA:1154:G:C5	2.99	0.50
22:BA:1179:G:C3'	22:BA:1180:U:H4'	2.23	0.50
22:BA:1394:U:C5	22:BA:1395:A:C5	2.99	0.50
22:BA:1501:G:C2'	22:BA:1502:A:H5'	2.41	0.50
22:BA:2148:G:O2'	22:BA:2149:U:O4'	2.29	0.50
22:BA:2197:U:P	4:CD:150:LYS:HD2	2.50	0.50
22:BA:2532:G:C5	22:BA:2533:U:C4	2.98	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2732:G:OP2	22:BA:2732:G:C8	2.62	0.50
24:BC:238:ASN:O	24:BC:239:PHE:HB2	2.11	0.50
25:BD:106:LYS:N	25:BD:106:LYS:CD	2.67	0.50
25:BD:139:SER:HA	25:BD:142:VAL:HG13	1.92	0.50
28:BG:61:TRP:HA	28:BG:64:ALA:HB3	1.94	0.50
28:BG:84:LYS:CB	28:BG:132:LEU:H	2.23	0.50
33:BL:110:VAL:CG1	33:BL:131:ALA:CB	2.89	0.50
34:BM:6:ARG:HB2	34:BM:6:ARG:NH1	2.26	0.50
45:BX:53:LYS:O	45:BX:57:VAL:HG23	2.11	0.50
49:B1:8:ILE:HD12	49:B1:51:ALA:C	2.37	0.50
49:B1:49:LYS:O	49:B1:50:GLU:HB3	2.10	0.50
50:B2:12:ARG:CZ	50:B2:12:ARG:HB2	2.40	0.50
53:CA:1018:G:H2'	53:CA:1019:A:O4'	2.10	0.50
53:CA:1190:G:H5'	3:CC:175:HIS:NE2	2.27	0.50
53:CA:1215:G:O2'	53:CA:1216:A:C5'	2.60	0.50
4:CD:11:SER:HB3	4:CD:16:THR:O	2.11	0.50
5:CE:132:PRO:C	5:CE:134:ASN:N	2.70	0.50
54:CG:137:ARG:HD2	54:CG:137:ARG:C	2.36	0.50
8:CH:28:SER:HA	8:CH:58:LEU:CD1	2.34	0.50
9:CI:19:PHE:O	9:CI:63:TYR:HB3	2.11	0.50
55:CM:49:GLU:HA	55:CM:49:GLU:OE1	2.11	0.50
15:CO:79:GLN:NE2	15:CO:83:ARG:HH21	2.02	0.50
20:CT:60:GLN:CB	20:CT:65:LEU:HD12	2.34	0.50
22:DA:92:U:C6	22:DA:93:G:C8	2.99	0.50
22:DA:96:C:O2'	22:DA:97:C:H5'	2.10	0.50
22:DA:224:U:C5	22:DA:420:C:H4'	2.44	0.50
22:DA:309:A:C2	22:DA:329:G:O2'	2.60	0.50
22:DA:876:C:O2'	22:DA:877:A:P	2.69	0.50
22:DA:995:C:H5''	38:DQ:53:LYS:HG2	1.93	0.50
22:DA:1206:G:C6	22:DA:1207:C:N4	2.80	0.50
22:DA:1429:G:C2	22:DA:1430:G:C5	2.99	0.50
22:DA:1654:A:H1'	25:DD:118:PHE:CB	2.41	0.50
22:DA:1722:A:H62	22:DA:1738:G:H1'	1.72	0.50
22:DA:1803:A:O2'	22:DA:1804:C:C5'	2.59	0.50
22:DA:1837:C:C2	22:DA:1904:G:C2	2.99	0.50
22:DA:1992:G:H4'	22:DA:1993:U:OP1	2.11	0.50
22:DA:2152:G:N3	22:DA:2152:G:H2'	2.26	0.50
22:DA:2285:C:C2'	22:DA:2286:G:H5''	2.39	0.50
22:DA:2611:C:H6	22:DA:2611:C:C5'	2.24	0.50
22:DA:2785:C:O3'	25:DD:70:LYS:HD3	2.10	0.50
57:DB:70:C:O2'	57:DB:71:C:H5'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:181:ARG:HH11	24:DC:265:PHE:HD1	1.59	0.50
25:DD:10:GLY:HA2	37:DP:4:ILE:HD13	1.93	0.50
26:DE:119:ILE:HD11	26:DE:143:LEU:HD21	1.87	0.50
28:DG:85:LYS:HD3	28:DG:164:ALA:O	2.11	0.50
28:DG:169:ARG:O	28:DG:170:THR:HB	2.10	0.50
30:DI:52:LEU:HD11	30:DI:78:LEU:CD2	2.41	0.50
30:DI:132:ALA:HB1	30:DI:137:LEU:HD12	1.92	0.50
33:DL:85:VAL:O	33:DL:85:VAL:HG22	2.10	0.50
34:DM:33:LEU:HB2	34:DM:117:PHE:CD2	2.45	0.50
34:DM:57:VAL:HG23	34:DM:58:LYS:O	2.10	0.50
35:DN:21:PHE:N	35:DN:21:PHE:HD1	2.09	0.50
38:DQ:75:TYR:OH	38:DQ:92:LYS:HE3	2.10	0.50
39:DR:21:ARG:HB2	39:DR:93:PHE:HD1	1.76	0.50
41:DT:15:HIS:CE1	41:DT:80:TRP:CH2	2.99	0.50
46:DY:23:ARG:O	46:DY:27:ASN:HB2	2.11	0.50
48:D0:12:ARG:HG3	48:D0:15:ARG:HH11	1.75	0.50
49:D1:43:ARG:NH2	49:D1:43:ARG:HB2	2.26	0.50
1:AA:176:C:H2'	1:AA:177:G:N3	2.25	0.50
1:AA:428:G:C1'	1:AA:430:A:N7	2.74	0.50
1:AA:519:C:O2'	1:AA:520:A:C5'	2.59	0.50
1:AA:580:C:H2'	1:AA:581:G:O4'	2.11	0.50
1:AA:656:G:O2'	1:AA:657:U:H5'	2.11	0.50
1:AA:772:U:C2'	1:AA:773:G:H5'	2.41	0.50
1:AA:853:C:H2'	1:AA:854:U:C5'	2.40	0.50
1:AA:1161:C:O2'	1:AA:1162:C:C5'	2.59	0.50
3:AC:33:ASP:O	3:AC:37:LYS:HB2	2.12	0.50
4:AD:3:TYR:O	4:AD:4:LEU:HB2	2.09	0.50
5:AE:152:VAL:O	5:AE:155:LYS:CE	2.59	0.50
7:AG:146:ALA:C	7:AG:148:LYS:N	2.67	0.50
9:AI:33:SER:OG	9:AI:35:GLU:HG2	2.12	0.50
12:AL:74:GLN:HG3	12:AL:75:GLU:HG2	1.92	0.50
17:AQ:10:ARG:O	17:AQ:22:VAL:HG13	2.12	0.50
17:AQ:80:LYS:HD3	17:AQ:80:LYS:N	2.25	0.50
21:AU:45:LYS:HA	21:AU:45:LYS:CE	2.41	0.50
22:BA:553:G:H2'	22:BA:554:U:O4'	2.10	0.50
22:BA:576:U:H2'	22:BA:577:G:C8	2.46	0.50
22:BA:979:A:H2'	22:BA:982:C:N4	2.25	0.50
22:BA:1188:U:C2'	22:BA:1189:A:C5'	2.85	0.50
22:BA:1479:G:O2'	22:BA:1480:C:H5'	2.11	0.50
22:BA:2392:A:H4'	51:B3:27:ASN:HD21	1.76	0.50
22:BA:2529:G:OP2	22:BA:2530:A:H5''	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:234:GLY:O	24:BC:235:GLU:CB	2.59	0.50
25:BD:90:PHE:C	25:BD:92:VAL:H	2.19	0.50
25:BD:121:THR:O	25:BD:122:VAL:CB	2.57	0.50
26:BE:32:VAL:HG23	26:BE:33:VAL:N	2.26	0.50
29:BH:31:VAL:HB	29:BH:32:PRO:HD3	1.86	0.50
29:BH:81:ALA:O	29:BH:102:ALA:HB2	2.11	0.50
31:BJ:6:ALA:HB3	31:BJ:45:THR:CG2	2.26	0.50
31:BJ:55:ILE:HG13	31:BJ:55:ILE:O	2.08	0.50
43:BV:51:GLN:NE2	43:BV:51:GLN:O	2.45	0.50
44:BW:75:ASN:O	44:BW:76:ARG:HB2	2.12	0.50
47:BZ:29:ARG:HH21	47:BZ:29:ARG:CG	2.22	0.50
53:CA:158:G:C4	53:CA:159:G:C8	2.99	0.50
53:CA:190:A:O5'	53:CA:190:A:H8	1.94	0.50
53:CA:1159:U:O4'	53:CA:1182:G:N2	2.44	0.50
2:CB:20:ARG:NH2	2:CB:38:HIS:CD2	2.79	0.50
6:CF:67:PRO:O	6:CF:68:GLN:C	2.54	0.50
6:CF:92:THR:CG2	6:CF:94:HIS:H	2.06	0.50
10:CJ:90:LEU:HD23	10:CJ:92:LEU:HD11	1.93	0.50
11:CK:34:THR:OG1	11:CK:39:ASN:N	2.44	0.50
12:CL:115:LYS:O	12:CL:116:TYR:CD2	2.64	0.50
15:CO:73:ASP:OD2	15:CO:76:ARG:HD3	2.11	0.50
56:CP:78:VAL:C	56:CP:80:LYS:N	2.64	0.50
19:CS:43:MET:O	19:CS:61:VAL:HG11	2.11	0.50
22:DA:27:G:O2'	22:DA:28:A:H8	1.93	0.50
22:DA:227:A:H5'	22:DA:229:C:N4	2.26	0.50
22:DA:247:G:C4'	22:DA:386:G:C5	2.86	0.50
22:DA:279:A:C6	22:DA:361:G:O2'	2.64	0.50
22:DA:522:A:H2'	22:DA:523:C:C6	2.46	0.50
22:DA:526:A:C6	22:DA:2626:C:C4'	2.94	0.50
22:DA:562:U:H2'	22:DA:572:A:O4'	2.12	0.50
22:DA:604:G:C6	22:DA:625:G:N1	2.79	0.50
22:DA:682:G:H5'	50:D2:26:ASN:OD1	2.12	0.50
22:DA:1264:A:H5'	48:D0:7:PRO:HG2	1.93	0.50
22:DA:1522:A:H1'	22:DA:1524:G:C4	2.46	0.50
22:DA:1973:G:H2'	22:DA:1974:C:C6	2.45	0.50
22:DA:2259:U:C5	22:DA:2427:C:C4	3.00	0.50
22:DA:2390:U:O2	22:DA:2390:U:H2'	2.12	0.50
22:DA:2432:A:H61	45:DX:20:ALA:HA	1.77	0.50
22:DA:2533:U:C4	22:DA:2534:A:C4	2.99	0.50
22:DA:2537:U:H2'	22:DA:2538:C:C6	2.45	0.50
22:DA:2746:U:H5''	28:DG:137:LYS:HG2	1.91	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2773:C:C2	22:DA:2774:C:C5	2.98	0.50
57:DB:42:C:N4	58:DF:87:LYS:HZ2	2.09	0.50
57:DB:109:A:C6	57:DB:110:C:C4	3.00	0.50
25:DD:101:PHE:HD2	25:DD:104:VAL:HG11	1.75	0.50
28:DG:167:VAL:CG2	28:DG:168:VAL:H	2.18	0.50
28:DG:168:VAL:HG12	28:DG:168:VAL:O	2.10	0.50
30:DI:29:GLN:O	30:DI:30:GLN:HB3	2.11	0.50
32:DK:9:ASN:O	32:DK:83:ALA:HA	2.10	0.50
34:DM:69:PRO:CA	34:DM:94:ALA:HB2	2.41	0.50
43:DV:56:PHE:C	43:DV:56:PHE:CD1	2.89	0.50
1:AA:154:U:H2'	1:AA:155:A:C8	2.47	0.50
1:AA:338:A:H2'	1:AA:339:C:O4'	2.11	0.50
1:AA:705:G:H2'	1:AA:706:A:H5'	1.94	0.50
1:AA:792:A:N3	1:AA:794:A:C6	2.79	0.50
1:AA:858:G:O2'	1:AA:859:G:H5'	2.11	0.50
1:AA:886:G:H2'	1:AA:887:G:O4'	2.12	0.50
1:AA:1060:U:H4'	10:AJ:53:ILE:HG23	1.92	0.50
1:AA:1183:U:H3'	1:AA:1184:G:C5'	2.40	0.50
1:AA:1253:G:O2'	1:AA:1254:A:H5'	2.10	0.50
1:AA:1323:G:HO2'	1:AA:1324:A:H8	1.51	0.50
1:AA:1343:G:O3'	9:AI:123:ARG:HB3	2.11	0.50
1:AA:1458:G:OP1	20:AT:29:THR:HG21	2.11	0.50
3:AC:55:VAL:O	3:AC:65:VAL:HA	2.12	0.50
5:AE:14:LEU:HD13	5:AE:14:LEU:C	2.34	0.50
5:AE:97:PRO:HA	5:AE:122:VAL:HG12	1.93	0.50
20:AT:43:LYS:HE2	20:AT:86:ALA:CB	2.40	0.50
22:BA:142:A:C5	22:BA:143:C:C4	2.99	0.50
22:BA:170:U:C2	22:BA:171:U:C6	2.99	0.50
22:BA:1071:G:H1'	22:BA:1089:A:C5	2.42	0.50
22:BA:1387:A:C4	22:BA:1401:G:N2	2.79	0.50
22:BA:1717:A:H2'	22:BA:1718:G:O4'	2.11	0.50
22:BA:1737:G:N1	22:BA:1738:G:N2	2.59	0.50
25:BD:90:PHE:HB2	25:BD:92:VAL:HG23	1.93	0.50
26:BE:5:LEU:HD23	26:BE:121:VAL:HA	1.92	0.50
30:BI:6:ALA:HB3	30:BI:60:VAL:H	1.77	0.50
31:BJ:64:VAL:HG11	31:BJ:68:LYS:HB2	1.93	0.50
31:BJ:109:LEU:HB3	31:BJ:110:PRO:HD2	1.93	0.50
37:BP:62:LYS:HD3	37:BP:64:SER:HB2	1.94	0.50
45:BX:42:GLU:OE2	45:BX:44:ARG:NH2	2.45	0.50
47:BZ:36:GLU:O	47:BZ:37:ARG:NE	2.43	0.50
53:CA:275:G:O2'	53:CA:276:G:C5'	2.60	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:369:G:C4	53:CA:370:C:C5	2.99	0.50
53:CA:372:C:C4'	53:CA:373:A:OP2	2.59	0.50
53:CA:519:C:C2'	53:CA:520:A:C8	2.74	0.50
53:CA:562:U:H1'	12:CL:11:ARG:HD2	1.93	0.50
53:CA:596:A:C6	53:CA:645:G:C2	3.00	0.50
53:CA:770:C:C2'	53:CA:771:G:H5'	2.42	0.50
53:CA:1151:A:C2'	53:CA:1152:A:O5'	2.58	0.50
53:CA:1239:A:H62	53:CA:1299:A:H61	1.58	0.50
53:CA:1399:C:C4	53:CA:1502:A:C2	3.00	0.50
2:CB:212:TYR:O	2:CB:212:TYR:CD2	2.61	0.50
3:CC:49:ALA:O	3:CC:50:SER:HB2	2.11	0.50
4:CD:84:ASN:OD1	5:CE:101:GLY:CA	2.59	0.50
5:CE:37:VAL:HG12	5:CE:38:VAL:H	1.76	0.50
5:CE:80:LEU:HD22	5:CE:146:MET:HE1	1.93	0.50
8:CH:102:VAL:HG22	8:CH:125:ILE:HB	1.93	0.50
11:CK:28:ASN:OD1	11:CK:46:ALA:HB3	2.12	0.50
12:CL:50:LYS:N	12:CL:50:LYS:CD	2.74	0.50
55:CM:18:LEU:H	55:CM:18:LEU:CD1	2.25	0.50
55:CM:53:ASP:HA	55:CM:56:ARG:CZ	2.42	0.50
17:CQ:59:GLU:HG2	17:CQ:76:ARG:CG	2.41	0.50
19:CS:50:VAL:CG1	19:CS:70:LEU:HB3	2.41	0.50
22:DA:128:C:O2'	22:DA:129:C:H6	1.93	0.50
22:DA:236:C:O2'	22:DA:237:C:H5'	2.11	0.50
22:DA:303:G:C6	22:DA:315:G:O6	2.64	0.50
22:DA:477:A:H2'	22:DA:478:A:C8	2.47	0.50
22:DA:976:G:O2'	22:DA:977:G:C5'	2.60	0.50
22:DA:1020:A:C2	22:DA:1141:U:C2	3.00	0.50
22:DA:1034:G:O6	22:DA:1122:G:C6	2.65	0.50
22:DA:1187:G:H8	22:DA:1187:G:O5'	1.94	0.50
22:DA:1286:A:C4	22:DA:1289:C:C4	2.99	0.50
22:DA:1308:A:C6	22:DA:1309:G:C2	3.00	0.50
22:DA:1385:A:O2'	22:DA:1386:C:C5'	2.59	0.50
22:DA:1747:U:C2	22:DA:1748:C:C5	3.00	0.50
22:DA:1817:G:H5''	24:DC:86:ARG:NH1	2.27	0.50
22:DA:1826:G:C5	22:DA:1827:U:C5	3.00	0.50
22:DA:2259:U:C6	22:DA:2427:C:C4	2.99	0.50
22:DA:2285:C:OP2	49:D1:5:ARG:HD3	2.12	0.50
22:DA:2542:A:H4'	22:DA:2543:G:H5'	1.90	0.50
22:DA:2550:G:C6	22:DA:2551:C:C4	3.00	0.50
22:DA:2616:C:O2'	22:DA:2617:U:C5'	2.59	0.50
57:DB:65:U:H3'	57:DB:108:A:H61	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:84:G:N2	57:DB:93:C:C2	2.79	0.50
24:DC:42:ARG:HD2	24:DC:48:ILE:HG12	1.93	0.50
25:DD:36:GLN:NE2	25:DD:38:LYS:HZ1	2.10	0.50
25:DD:49:GLN:NE2	25:DD:79:LEU:HB3	2.27	0.50
25:DD:149:ASN:OD1	25:DD:150:GLN:N	2.45	0.50
32:DK:118:LEU:O	32:DK:120:PRO:CD	2.59	0.50
37:DP:72:VAL:O	37:DP:72:VAL:HG23	2.12	0.50
38:DQ:78:PHE:CE2	38:DQ:109:VAL:HG22	2.47	0.50
41:DT:28:ASN:C	41:DT:29:THR:HG22	2.36	0.50
41:DT:74:ILE:HG13	41:DT:75:GLY:H	1.74	0.50
46:DY:28:LEU:HD11	46:DY:43:LEU:CD1	2.34	0.50
1:AA:15:G:C4'	5:AE:28:ARG:HH11	2.24	0.50
1:AA:372:C:H5'	1:AA:373:A:OP1	2.11	0.50
1:AA:942:G:C2	1:AA:1342:C:C2	2.99	0.50
1:AA:1003:G:C6	1:AA:1036:A:N6	2.80	0.50
1:AA:1053:G:N7	1:AA:1199:U:C6	2.80	0.50
1:AA:1160:G:O2'	1:AA:1161:C:O5'	2.28	0.50
1:AA:1503:A:C8	1:AA:1531:A:H1'	2.47	0.50
4:AD:33:ILE:O	4:AD:33:ILE:HG23	2.11	0.50
8:AH:4:ASP:HB2	8:AH:80:PRO:HG3	1.92	0.50
14:AN:15:LEU:HA	14:AN:18:LYS:CD	2.41	0.50
22:BA:61:C:O5'	22:BA:61:C:H6	1.94	0.50
22:BA:324:A:N6	22:BA:339:U:O4'	2.42	0.50
22:BA:2670:A:C2'	22:BA:2671:G:O5'	2.60	0.50
22:BA:2714:G:H2'	22:BA:2715:C:C6	2.46	0.50
22:BA:2830:C:O2	22:BA:2883:A:H2	1.94	0.50
24:BC:84:PRO:HD2	24:BC:85:ASN:OD1	2.12	0.50
25:BD:159:LYS:HZ2	25:BD:159:LYS:HA	1.72	0.50
27:BF:133:GLU:N	27:BF:150:GLY:HA2	2.24	0.50
28:BG:88:LEU:N	28:BG:88:LEU:HD23	2.26	0.50
28:BG:174:LYS:HE2	28:BG:176:LYS:OXT	2.11	0.50
29:BH:117:LEU:CD1	29:BH:130:VAL:HG11	2.37	0.50
30:BI:56:VAL:HG23	30:BI:69:VAL:O	2.10	0.50
31:BJ:40:HIS:C	31:BJ:41:LYS:CG	2.84	0.50
33:BL:37:GLY:HA3	62:BL:303:HOH:O	2.12	0.50
33:BL:81:ASP:O	33:BL:82:LEU:HB3	2.11	0.50
34:BM:33:LEU:HD21	34:BM:128:THR:HB	1.93	0.50
34:BM:36:VAL:HG23	43:BV:82:TYR:HB2	1.93	0.50
40:BS:33:LEU:HD21	40:BS:55:ILE:CD1	2.40	0.50
41:BT:50:LEU:HD22	46:BY:26:PHE:CE2	2.46	0.50
42:BU:35:VAL:CG1	42:BU:38:ILE:HG13	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:30:PRO:O	45:BX:32:LEU:HD12	2.11	0.50
52:B4:1:MET:HE2	52:B4:34:LYS:CG	2.35	0.50
53:CA:115:G:H5'	53:CA:116:A:OP1	2.11	0.50
53:CA:245:U:O2'	53:CA:246:A:C5'	2.48	0.50
53:CA:320:A:C2	53:CA:334:C:N3	2.79	0.50
53:CA:428:G:C5	53:CA:430:A:C6	2.99	0.50
53:CA:1191:A:H8	53:CA:1191:A:OP2	1.93	0.50
53:CA:1297:G:C8	53:CA:1297:G:OP2	2.65	0.50
53:CA:1421:G:N2	53:CA:1479:C:N3	2.55	0.50
53:CA:1449:C:O2'	53:CA:1450:U:H5'	2.11	0.50
53:CA:1494:G:C2'	53:CA:1495:U:O5'	2.59	0.50
2:CB:93:HIS:CE1	2:CB:145:ASN:O	2.61	0.50
6:CF:61:LEU:CD1	6:CF:62:MET:H	2.16	0.50
8:CH:102:VAL:O	8:CH:103:VAL:HG13	2.10	0.50
9:CI:44:ARG:NH1	9:CI:44:ARG:HB3	2.26	0.50
22:DA:49:A:C6	22:DA:177:G:C6	2.99	0.50
22:DA:192:C:O2'	22:DA:802:A:N3	2.43	0.50
22:DA:1056:G:OP2	22:DA:1056:G:H3'	2.11	0.50
22:DA:1081:U:O2'	22:DA:1082:U:H5'	2.11	0.50
22:DA:1087:G:C4	22:DA:1089:A:N3	2.80	0.50
22:DA:1142:A:N7	22:DA:1144:A:C5	2.79	0.50
22:DA:1441:G:C2	22:DA:1551:A:C2	3.00	0.50
22:DA:1667:G:O2'	22:DA:1668:A:P	2.70	0.50
22:DA:1709:U:O2'	22:DA:1710:G:H5'	2.12	0.50
22:DA:1912:A:N6	22:DA:1917:U:N3	2.51	0.50
22:DA:2061:G:C4	22:DA:2063:C:N4	2.80	0.50
22:DA:2283:C:C4	22:DA:2389:G:C4	2.99	0.50
22:DA:2604:U:H2'	22:DA:2605:U:H6	1.76	0.50
22:DA:2706:A:N6	62:DA:3669:HOH:O	2.43	0.50
22:DA:2881:U:O3'	35:DN:96:ARG:NE	2.44	0.50
57:DB:94:A:OP1	43:DV:19:ARG:CD	2.54	0.50
25:DD:62:LYS:N	25:DD:63:PRO:CD	2.74	0.50
26:DE:136:GLN:HA	26:DE:136:GLN:OE1	2.11	0.50
58:DF:63:LYS:HD3	58:DF:63:LYS:C	2.36	0.50
28:DG:83:THR:O	28:DG:140:ILE:HD12	2.11	0.50
28:DG:85:LYS:HG3	28:DG:163:TYR:HB2	1.94	0.50
29:DH:75:LEU:O	29:DH:76:GLU:HB2	2.10	0.50
30:DI:118:GLY:O	30:DI:119:ALA:HB3	2.11	0.50
35:DN:9:GLN:O	35:DN:17:ARG:NE	2.45	0.50
35:DN:31:HIS:C	35:DN:33:ILE:H	2.18	0.50
35:DN:103:ARG:HB2	35:DN:110:MET:SD	2.52	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:9:GLN:C	37:DP:11:GLN:H	2.18	0.50
37:DP:19:PHE:O	37:DP:20:ARG:HB3	2.11	0.50
38:DQ:73:ILE:HD11	38:DQ:77:LYS:HD3	1.93	0.50
40:DS:36:LEU:C	40:DS:38:TYR:N	2.67	0.50
42:DU:81:ARG:N	42:DU:81:ARG:CD	2.72	0.50
46:DY:17:GLU:HG2	46:DY:50:VAL:HG13	1.93	0.50
1:AA:198:G:O6	1:AA:220:G:C6	2.64	0.50
1:AA:316:C:C2	1:AA:317:U:H5	2.29	0.50
1:AA:388:G:O2'	1:AA:389:A:P	2.69	0.50
1:AA:1006:G:H2'	1:AA:1007:U:O4'	2.12	0.50
1:AA:1055:A:C5	1:AA:1206:G:C2	3.00	0.50
1:AA:1267:C:H2'	1:AA:1268:G:H5'	1.94	0.50
2:AB:9:LEU:CD2	2:AB:11:ALA:N	2.72	0.50
4:AD:9:LYS:O	4:AD:12:ARG:HB2	2.11	0.50
4:AD:129:VAL:HG13	4:AD:131:ILE:HD13	1.88	0.50
9:AI:49:GLN:C	9:AI:51:LEU:H	2.19	0.50
10:AJ:15:HIS:HB3	10:AJ:70:HIS:CE1	2.47	0.50
13:AM:80:MET:SD	13:AM:91:ARG:HB2	2.52	0.50
15:AO:80:LEU:HD12	15:AO:80:LEU:C	2.36	0.50
19:AS:39:ILE:HD11	19:AS:70:LEU:CD2	2.37	0.50
22:BA:172:A:O2'	22:BA:173:A:H5'	2.11	0.50
22:BA:545:U:O2	22:BA:545:U:O4'	2.27	0.50
22:BA:923:G:C5'	44:BW:25:PHE:CZ	2.93	0.50
22:BA:955:U:OP1	34:BM:86:LYS:NZ	2.36	0.50
22:BA:1151:A:H5''	22:BA:1151:A:C8	2.46	0.50
22:BA:1165:A:H2'	22:BA:1166:G:C8	2.45	0.50
22:BA:1660:G:O2'	22:BA:1661:G:H5'	2.11	0.50
22:BA:1882:U:C2'	22:BA:1883:U:H5'	2.42	0.50
22:BA:2508:G:O2'	22:BA:2555:U:H5'	2.11	0.50
24:BC:61:TYR:HD2	24:BC:85:ASN:ND2	2.09	0.50
25:BD:34:VAL:HG22	25:BD:94:GLN:N	2.26	0.50
26:BE:158:PHE:CD1	26:BE:159:LEU:HD12	2.46	0.50
26:BE:176:ASP:OD1	26:BE:176:ASP:C	2.54	0.50
29:BH:18:GLN:HA	29:BH:18:GLN:NE2	2.13	0.50
36:BO:3:LYS:HG3	36:BO:4:LYS:N	2.25	0.50
43:BV:26:PHE:CZ	43:BV:42:LEU:HD12	2.47	0.50
43:BV:71:LYS:C	43:BV:72:VAL:HG13	2.36	0.50
45:BX:18:SER:H	45:BX:22:ASN:H	1.59	0.50
46:BY:12:GLU:O	46:BY:15:ASN:HB2	2.12	0.50
46:BY:26:PHE:HD1	46:BY:27:ASN:HD22	1.59	0.50
49:B1:29:LYS:HB3	49:B1:29:LYS:HZ2	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:85:U:O4'	53:CA:85:U:O2	2.26	0.50
53:CA:160:A:H1'	53:CA:344:A:N7	2.26	0.50
53:CA:273:U:H2'	53:CA:274:A:H5'	1.92	0.50
53:CA:304:U:H2'	53:CA:305:G:C8	2.46	0.50
53:CA:499:A:H1'	53:CA:500:G:C8	2.47	0.50
53:CA:733:G:O2'	53:CA:734:G:H5''	2.12	0.50
53:CA:826:C:H2'	53:CA:826:C:O2	2.11	0.50
53:CA:1013:G:N2	53:CA:1015:G:H3'	2.27	0.50
53:CA:1195:C:H2'	53:CA:1197:A:O4'	2.12	0.50
53:CA:1281:C:H3'	53:CA:1282:C:C5'	2.41	0.50
53:CA:1343:G:H2'	53:CA:1344:C:C6	2.46	0.50
53:CA:1363:A:C5	53:CA:1365:G:O6	2.64	0.50
2:CB:66:ILE:H	2:CB:88:GLN:HB3	1.74	0.50
2:CB:221:ARG:C	2:CB:223:GLY:H	2.20	0.50
4:CD:29:THR:HG22	4:CD:30:LYS:HD2	1.90	0.50
10:CJ:8:ILE:HG22	10:CJ:100:ILE:HG12	1.94	0.50
12:CL:43:LYS:CB	12:CL:44:PRO:CD	2.51	0.50
12:CL:46:SER:O	12:CL:47:ALA:CB	2.58	0.50
55:CM:64:VAL:O	55:CM:65:GLU:C	2.54	0.50
55:CM:100:ARG:NH2	55:CM:102:LYS:HD3	2.26	0.50
14:CN:89:ARG:HG3	14:CN:91:GLU:HG3	1.93	0.50
15:CO:44:GLU:HG2	15:CO:45:HIS:CD2	2.47	0.50
15:CO:59:VAL:O	15:CO:62:ARG:HB3	2.11	0.50
22:DA:9:G:C6	22:DA:2629:U:C6	3.00	0.50
22:DA:98:G:O2'	22:DA:103:A:C8	2.65	0.50
22:DA:518:G:H2'	22:DA:519:U:C6	2.45	0.50
22:DA:616:A:O2'	22:DA:617:G:C5'	2.58	0.50
22:DA:622:G:O2'	22:DA:623:C:C5'	2.58	0.50
22:DA:636:G:O6	33:DL:109:LYS:HG3	2.12	0.50
22:DA:781:A:N1	22:DA:1776:G:O2'	2.42	0.50
22:DA:833:A:H2'	22:DA:834:G:H8	1.76	0.50
22:DA:922:C:H2'	22:DA:923:G:O4'	2.12	0.50
22:DA:1439:A:C8	22:DA:1439:A:C3'	2.94	0.50
22:DA:1744:A:H3'	22:DA:1745:A:C8	2.46	0.50
22:DA:2262:U:H5''	44:DW:38:ARG:HH21	1.76	0.50
22:DA:2345:G:C8	22:DA:2347:C:C5	2.99	0.50
22:DA:2450:A:C2	22:DA:2451:A:C8	2.99	0.50
22:DA:2492:U:HO2'	22:DA:2493:U:H6	1.60	0.50
22:DA:2574:G:H1'	25:DD:148:GLN:HB2	1.93	0.50
22:DA:2748:A:C2	22:DA:2749:A:C4	3.00	0.50
22:DA:2849:U:O4	22:DA:2867:G:C8	2.65	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:13:G:H8	57:DB:13:G:H5''	1.76	0.50
25:DD:45:TYR:HE2	25:DD:47:ALA:HB3	1.77	0.50
25:DD:166:GLY:O	25:DD:167:ASN:CB	2.59	0.50
28:DG:116:LEU:CD1	28:DG:121:THR:HA	2.41	0.50
31:DJ:38:GLY:C	31:DJ:40:HIS:H	2.20	0.50
32:DK:104:THR:C	32:DK:106:GLU:N	2.68	0.50
35:DN:80:PHE:O	35:DN:85:PRO:HD3	2.12	0.50
37:DP:50:ARG:CA	37:DP:57:ALA:O	2.58	0.50
38:DQ:40:LYS:HD3	38:DQ:44:TYR:HE2	1.75	0.50
41:DT:38:ALA:C	41:DT:39:THR:HG22	2.34	0.50
42:DU:58:VAL:HG11	42:DU:60:LYS:HG2	1.91	0.50
49:D1:5:ARG:NH2	49:D1:23:THR:HB	2.26	0.50
51:D3:18:LYS:CD	51:D3:19:GLY:N	2.72	0.50
1:AA:87:C:H2'	1:AA:88:U:C6	2.33	0.50
1:AA:105:G:H2'	1:AA:106:C:C6	2.46	0.50
1:AA:191:G:H2'	1:AA:192:A:C8	2.47	0.50
1:AA:238:A:C2'	1:AA:239:U:H5'	2.42	0.50
1:AA:251:G:C4'	1:AA:252:U:H5''	2.41	0.50
1:AA:251:G:N1	1:AA:266:G:O6	2.45	0.50
1:AA:429:U:H1'	1:AA:430:A:C5'	2.40	0.50
1:AA:538:G:OP2	12:AL:111:GLN:HB2	2.12	0.50
1:AA:628:G:H2'	1:AA:629:A:C8	2.47	0.50
1:AA:702:A:C4	22:BA:1847:A:C2	2.97	0.50
1:AA:821:G:O2'	1:AA:822:U:C5'	2.60	0.50
1:AA:1167:A:N7	1:AA:1169:A:C6	2.80	0.50
1:AA:1253:G:H2'	1:AA:1254:A:H8	1.75	0.50
6:AF:3:HIS:O	6:AF:4:TYR:CG	2.64	0.50
10:AJ:81:GLU:O	10:AJ:84:VAL:HG12	2.11	0.50
15:AO:20:ASP:OD1	15:AO:23:SER:HB2	2.11	0.50
18:AR:22:TYR:HA	18:AR:57:ALA:HB1	1.94	0.50
22:BA:450:G:OP2	62:BA:3238:HOH:O	2.19	0.50
22:BA:703:U:C2'	22:BA:704:G:H5'	2.42	0.50
22:BA:709:U:H2'	22:BA:710:U:O4'	2.11	0.50
22:BA:986:C:C2'	22:BA:987:C:H5'	2.42	0.50
22:BA:1097:U:O2'	30:BI:8:VAL:HG12	2.12	0.50
22:BA:1319:C:C2'	22:BA:1320:C:H5'	2.41	0.50
22:BA:1413:A:C6	22:BA:1414:C:N3	2.79	0.50
22:BA:1935:G:N1	22:BA:1962:C:H2'	2.27	0.50
22:BA:2232:C:H2'	22:BA:2233:U:O5'	2.11	0.50
22:BA:2447:G:C8	22:BA:2501:C:H5''	2.47	0.50
22:BA:2515:C:C2'	22:BA:2516:A:H5'	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2786:U:H2'	22:BA:2787:C:H6	1.77	0.50
23:BB:19:C:C2'	23:BB:20:G:H5'	2.41	0.50
24:BC:39:SER:C	24:BC:41:GLY:H	2.20	0.50
29:BH:68:ARG:NH2	29:BH:69:ALA:HA	2.27	0.50
35:BN:33:ILE:N	35:BN:33:ILE:CD1	2.69	0.50
35:BN:116:VAL:O	35:BN:116:VAL:CG2	2.59	0.50
37:BP:103:THR:O	37:BP:104:GLY:O	2.30	0.50
40:BS:45:VAL:CG2	40:BS:46:LEU:N	2.74	0.50
44:BW:30:VAL:HG23	44:BW:60:ALA:O	2.12	0.50
44:BW:40:ARG:HH11	44:BW:45:HIS:CE1	2.30	0.50
46:BY:8:GLU:O	46:BY:12:GLU:HB2	2.12	0.50
53:CA:116:A:H2'	53:CA:117:G:H8	1.74	0.50
53:CA:346:G:O2'	53:CA:347:G:O4'	2.29	0.50
53:CA:675:A:H1'	11:CK:117:HIS:CE1	2.47	0.50
53:CA:1279:G:H2'	53:CA:1279:G:N3	2.27	0.50
53:CA:1349:A:O2'	53:CA:1350:A:H5'	2.10	0.50
53:CA:1359:C:H4'	62:CA:1777:HOH:O	2.10	0.50
6:CF:2:ARG:CG	6:CF:4:TYR:CZ	2.95	0.50
6:CF:61:LEU:CD1	6:CF:62:MET:N	2.75	0.50
10:CJ:7:ARG:HH11	10:CJ:102:LEU:HG	1.74	0.50
11:CK:125:LYS:O	11:CK:126:ARG:O	2.28	0.50
19:CS:79:TYR:CE1	19:CS:80:ARG:HD2	2.47	0.50
22:DA:7:G:H2'	22:DA:8:C:O4'	2.12	0.50
22:DA:233:A:H61	22:DA:428:A:N6	2.10	0.50
22:DA:279:A:H61	22:DA:361:G:C1'	2.18	0.50
22:DA:426:C:H2'	22:DA:427:U:C5'	2.41	0.50
22:DA:489:G:C6	22:DA:491:G:C4	3.00	0.50
22:DA:581:C:P	38:DQ:32:ARG:HE	2.34	0.50
22:DA:627:A:N6	33:DL:112:LEU:HD23	2.27	0.50
22:DA:1079:C:O2'	22:DA:1080:A:C8	2.57	0.50
22:DA:1206:G:H2'	22:DA:1207:C:C5	2.47	0.50
22:DA:1381:G:C2'	22:DA:1382:G:H5''	2.42	0.50
22:DA:1388:G:N3	22:DA:1389:G:C8	2.79	0.50
22:DA:1650:A:H5'	35:DN:106:ASP:OD2	2.11	0.50
22:DA:1670:C:C5	22:DA:1671:U:C5	2.99	0.50
22:DA:2024:G:O2'	22:DA:2025:C:C5'	2.60	0.50
22:DA:2077:A:C5	22:DA:2078:C:C5	2.99	0.50
22:DA:2136:G:O2'	22:DA:2137:U:H6	1.91	0.50
22:DA:2234:G:C4	22:DA:2235:G:C8	3.00	0.50
22:DA:2253:G:C5	22:DA:2254:C:C5	2.99	0.50
22:DA:2344:U:O2'	22:DA:2345:G:H5''	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2386:A:H2	44:DW:38:ARG:HG2	1.75	0.50
22:DA:2544:G:H2'	22:DA:2545:G:H8	1.76	0.50
22:DA:2601:C:H4'	22:DA:2602:A:OP2	2.07	0.50
22:DA:2622:U:O2'	22:DA:2825:G:N7	2.42	0.50
22:DA:2657:A:O2'	22:DA:2658:C:H5'	2.11	0.50
22:DA:2712:C:H5''	22:DA:2713:U:OP2	2.11	0.50
25:DD:55:LYS:HB3	25:DD:75:ALA:HB1	1.92	0.50
26:DE:147:LEU:HG	26:DE:186:VAL:HG23	1.94	0.50
28:DG:28:LYS:HG3	28:DG:79:THR:HG22	1.94	0.50
29:DH:80:ILE:CB	29:DH:101:ASP:HB2	2.38	0.50
33:DL:54:GLN:O	33:DL:55:MET:C	2.54	0.50
33:DL:121:THR:OG1	33:DL:141:LYS:HE3	2.11	0.50
35:DN:21:PHE:HE2	35:DN:43:GLU:HB3	1.77	0.50
35:DN:98:LEU:O	35:DN:112:TYR:HB2	2.12	0.50
42:DU:14:THR:HB	42:DU:68:ASN:CB	2.32	0.50
44:DW:39:GLN:CD	44:DW:39:GLN:O	2.55	0.50
45:DX:48:LEU:O	45:DX:50:VAL:HG13	2.11	0.50
51:D3:57:VAL:HA	51:D3:60:CYS:HB2	1.94	0.50
1:AA:10:A:OP2	5:AE:130:THR:OG1	2.24	0.50
1:AA:15:G:H4'	5:AE:28:ARG:HH11	1.76	0.50
1:AA:96:U:O2'	1:AA:97:G:H8	1.95	0.50
1:AA:154:U:H2'	1:AA:155:A:H8	1.77	0.50
1:AA:270:A:H2'	1:AA:271:C:C6	2.46	0.50
1:AA:363:A:C2	1:AA:364:A:C4	2.99	0.50
1:AA:374:A:H2'	1:AA:375:U:C6	2.47	0.50
1:AA:695:A:C6	1:AA:696:A:C6	3.00	0.50
1:AA:1014:A:H4'	19:AS:13:HIS:CD2	2.47	0.50
1:AA:1086:U:O2'	1:AA:1087:G:H5'	2.12	0.50
1:AA:1124:G:OP1	10:AJ:37:ARG:C	2.55	0.50
1:AA:1151:A:H5'	10:AJ:42:LEU:O	2.10	0.50
1:AA:1430:A:C2	1:AA:1471:U:C2	2.99	0.50
3:AC:183:TYR:OH	3:AC:198:LYS:HD2	2.12	0.50
3:AC:190:THR:C	3:AC:192:TYR:H	2.20	0.50
4:AD:21:LYS:O	4:AD:21:LYS:CD	2.56	0.50
5:AE:23:THR:HA	5:AE:28:ARG:HA	1.93	0.50
13:AM:3:ILE:H	13:AM:56:ARG:NH1	2.09	0.50
15:AO:24:THR:HG21	15:AO:69:LEU:HD12	1.94	0.50
20:AT:73:ARG:O	20:AT:76:ALA:HB3	2.12	0.50
22:BA:27:G:H1'	22:BA:513:A:N6	2.27	0.50
22:BA:346:A:C4	22:BA:347:A:C8	3.00	0.50
22:BA:548:G:H3'	22:BA:548:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:736:C:C2	22:BA:737:C:C5	2.99	0.50
22:BA:819:A:OP2	22:BA:1187:G:N2	2.32	0.50
22:BA:1081:U:O2'	30:BI:117:THR:O	2.26	0.50
22:BA:1085:A:H2'	22:BA:1086:A:C2	2.46	0.50
22:BA:1176:U:H2'	22:BA:1177:G:C4	2.46	0.50
22:BA:1206:G:C5	22:BA:1207:C:C5	2.99	0.50
22:BA:1338:G:O2'	41:BT:18:GLU:HG2	2.11	0.50
22:BA:1419:A:N7	22:BA:1421:G:C6	2.80	0.50
22:BA:1509:A:O2'	22:BA:1510:G:P	2.70	0.50
22:BA:2040:G:O2'	22:BA:2041:U:H5'	2.12	0.50
22:BA:2210:U:O2	22:BA:2212:A:C8	2.65	0.50
22:BA:2236:U:C2'	22:BA:2237:G:H5'	2.42	0.50
22:BA:2262:U:H2'	22:BA:2263:C:H6	1.76	0.50
22:BA:2282:G:H4'	22:BA:2389:G:O2'	2.11	0.50
22:BA:2539:C:O2'	22:BA:2540:C:H5'	2.11	0.50
22:BA:2547:A:H2'	22:BA:2548:U:C5	2.47	0.50
23:BB:24:G:C6	23:BB:56:G:C2	3.00	0.50
23:BB:28:C:H2'	23:BB:29:A:C5'	2.42	0.50
24:BC:140:VAL:HA	24:BC:190:THR:O	2.11	0.50
25:BD:15:PHE:N	37:BP:11:GLN:HE22	2.09	0.50
25:BD:101:PHE:O	25:BD:102:ALA:C	2.55	0.50
28:BG:154:GLU:OE2	28:BG:156:TYR:HB2	2.11	0.50
30:BI:58:ILE:HG22	30:BI:60:VAL:HG23	1.92	0.50
33:BL:131:ALA:O	33:BL:132:ARG:C	2.55	0.50
35:BN:6:SER:HB3	62:BN:202:HOH:O	2.11	0.50
38:BQ:20:ALA:HA	38:BQ:23:TYR:CE1	2.47	0.50
41:BT:17:SER:O	41:BT:18:GLU:CB	2.59	0.50
43:BV:5:ASN:HB3	43:BV:64:VAL:HB	1.94	0.50
45:BX:30:PRO:C	45:BX:32:LEU:HD12	2.37	0.50
52:B4:7:VAL:HG13	52:B4:38:GLY:HA2	1.94	0.50
53:CA:182:A:HO2'	53:CA:183:C:H2'	1.77	0.50
53:CA:276:G:O2'	53:CA:277:C:C5'	2.60	0.50
53:CA:408:A:C2	53:CA:435:A:C2	3.00	0.50
53:CA:452:A:H2'	53:CA:453:G:O4'	2.11	0.50
53:CA:555:U:H2'	53:CA:556:C:C6	2.46	0.50
53:CA:616:G:C2	53:CA:625:U:O2	2.65	0.50
53:CA:974:A:O2'	53:CA:975:A:OP2	2.30	0.50
2:CB:8:MET:HB2	2:CB:9:LEU:HD23	1.94	0.50
2:CB:26:MET:CE	2:CB:29:PHE:CD2	2.91	0.50
3:CC:161:ILE:H	3:CC:161:ILE:CD1	2.24	0.50
4:CD:94:GLU:OE1	4:CD:103:ARG:NE	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:17:VAL:HA	5:CE:33:THR:O	2.12	0.50
8:CH:5:PRO:O	8:CH:8:ASP:HB3	2.11	0.50
8:CH:38:VAL:O	8:CH:41:GLU:HB2	2.11	0.50
55:CM:94:LEU:HD12	55:CM:94:LEU:N	2.26	0.50
55:CM:95:PRO:HG3	55:CM:99:GLN:OE1	2.11	0.50
17:CQ:30:HIS:HE1	17:CQ:32:ILE:CG1	2.05	0.50
21:CU:3:ILE:HG21	21:CU:18:PHE:HB3	1.94	0.50
21:CU:14:ALA:O	21:CU:15:LEU:O	2.30	0.50
22:DA:28:A:N6	22:DA:513:A:C8	2.79	0.50
22:DA:246:C:O2'	22:DA:385:C:H4'	2.11	0.50
22:DA:271:G:O2'	22:DA:272:A:H5''	2.11	0.50
22:DA:566:U:H2'	22:DA:567:U:O4'	2.12	0.50
22:DA:858:G:C5	22:DA:2268:A:C2	3.00	0.50
22:DA:1275:A:O3'	22:DA:1276:A:O4'	2.30	0.50
22:DA:1317:G:C2	22:DA:1336:A:C2	3.00	0.50
22:DA:1817:G:H5''	24:DC:86:ARG:CZ	2.42	0.50
22:DA:1954:G:O2'	22:DA:1955:U:OP2	2.30	0.50
22:DA:2238:G:H5'	22:DA:2239:G:OP1	2.11	0.50
22:DA:2352:A:H8	22:DA:2352:A:O5'	1.95	0.50
22:DA:2533:U:O4	22:DA:2534:A:C2	2.64	0.50
22:DA:2563:U:H2'	22:DA:2565:A:OP2	2.11	0.50
22:DA:2581:G:H5''	22:DA:2582:G:OP1	2.12	0.50
22:DA:2716:C:C2	22:DA:2717:C:C5	2.99	0.50
57:DB:17:C:H2'	57:DB:18:G:H8	1.77	0.50
57:DB:69:G:H2'	57:DB:70:C:H5'	1.93	0.50
24:DC:62:ARG:CG	24:DC:62:ARG:NH2	2.65	0.50
26:DE:35:TYR:CE2	26:DE:177:PRO:HD2	2.47	0.50
58:DF:14:LYS:HB3	58:DF:14:LYS:NZ	2.27	0.50
28:DG:8:VAL:HA	28:DG:68:ARG:HH21	1.77	0.50
29:DH:40:THR:O	29:DH:41:LYS:HB2	2.12	0.50
37:DP:51:ASN:H	37:DP:56:SER:HB3	1.75	0.50
40:DS:74:ILE:O	40:DS:74:ILE:HG23	2.12	0.50
43:DV:30:ILE:HG13	43:DV:40:ILE:HD11	1.94	0.50
50:D2:15:SER:O	50:D2:16:HIS:ND1	2.45	0.50
52:D4:7:VAL:CG2	52:D4:25:VAL:CG2	2.90	0.50
1:AA:652:U:O2'	1:AA:653:U:O5'	2.30	0.50
1:AA:901:A:N7	1:AA:902:G:H1'	2.26	0.50
1:AA:908:A:O2'	1:AA:909:A:H5'	2.12	0.50
1:AA:937:A:H2'	1:AA:938:A:H5'	1.93	0.50
1:AA:973:G:H5'	10:AJ:57:VAL:HA	1.92	0.50
1:AA:1123:U:C4'	10:AJ:39:PRO:HD2	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:9:LEU:HD21	2:AB:11:ALA:HB3	1.94	0.50
3:AC:15:LYS:HG3	3:AC:16:PRO:HD2	1.94	0.50
3:AC:119:ILE:HA	3:AC:122:GLN:HG3	1.93	0.50
4:AD:19:PHE:N	4:AD:19:PHE:HD1	2.09	0.50
5:AE:44:ARG:HA	5:AE:71:ILE:O	2.12	0.50
8:AH:95:MET:SD	8:AH:129:ALA:HB1	2.51	0.50
11:AK:109:ILE:CG2	11:AK:110:THR:N	2.75	0.50
12:AL:82:ARG:HG2	12:AL:82:ARG:NH1	2.27	0.50
17:AQ:15:LYS:HD2	17:AQ:15:LYS:C	2.37	0.50
19:AS:6:LYS:HE2	19:AS:6:LYS:CA	2.39	0.50
22:BA:569:U:H1'	22:BA:947:A:O4'	2.11	0.50
22:BA:687:C:O2'	22:BA:1780:A:N1	2.44	0.50
22:BA:715:A:N6	22:BA:716:A:C6	2.80	0.50
22:BA:833:A:H2'	22:BA:834:G:C8	2.47	0.50
22:BA:915:C:H6	22:BA:915:C:C5'	2.17	0.50
22:BA:1159:U:H2'	22:BA:1160:G:H5'	1.92	0.50
22:BA:1419:A:C5	22:BA:1421:G:C5	2.99	0.50
22:BA:1644:C:H2'	22:BA:1645:G:C5'	2.40	0.50
22:BA:1669:A:OP2	62:BA:3714:HOH:O	2.19	0.50
22:BA:2314:A:O2'	22:BA:2315:G:H5'	2.12	0.50
22:BA:2344:U:H4'	22:BA:2345:G:OP1	2.07	0.50
23:BB:65:U:C4	23:BB:108:A:C4	2.99	0.50
24:BC:7:PRO:HB3	24:BC:13:ARG:HB2	1.93	0.50
24:BC:163:ILE:HG23	24:BC:171:VAL:CG1	2.42	0.50
25:BD:136:ASN:OD1	25:BD:140:HIS:CE1	2.65	0.50
26:BE:48:THR:HG22	26:BE:86:ALA:HB3	1.94	0.50
27:BF:10:GLU:O	27:BF:11:VAL:HB	2.11	0.50
27:BF:106:ALA:C	27:BF:108:PRO:CD	2.83	0.50
30:BI:72:THR:HB	30:BI:112:LYS:NZ	2.26	0.50
32:BK:111:LYS:CE	32:BK:111:LYS:N	2.74	0.50
33:BL:40:SER:O	33:BL:41:ARG:CB	2.57	0.50
33:BL:120:VAL:O	33:BL:140:GLY:HA2	2.11	0.50
34:BM:54:THR:O	34:BM:55:ARG:C	2.54	0.50
38:BQ:63:ARG:NH2	38:BQ:96:ASP:HA	2.27	0.50
41:BT:7:LEU:O	41:BT:10:VAL:HG13	2.10	0.50
41:BT:40:LYS:HG2	41:BT:58:VAL:O	2.12	0.50
45:BX:70:LEU:O	45:BX:74:GLY:N	2.45	0.50
53:CA:248:C:O2'	53:CA:249:U:O4'	2.29	0.50
53:CA:596:A:O2'	53:CA:597:G:H5'	2.12	0.50
53:CA:1176:A:H2'	53:CA:1177:G:O4'	2.12	0.50
53:CA:1328:C:H2'	53:CA:1329:A:H8	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:9:LEU:HB2	2:CB:11:ALA:H	1.77	0.50
5:CE:103:GLY:CA	5:CE:120:HIS:O	2.59	0.50
6:CF:9:MET:HE3	18:CR:64:LEU:HD22	1.93	0.50
54:CG:59:GLU:HB2	54:CG:62:GLU:HB2	1.94	0.50
54:CG:114:SER:O	54:CG:118:ARG:HG3	2.12	0.50
10:CJ:30:LYS:CE	10:CJ:36:VAL:HG22	2.42	0.50
10:CJ:64:GLN:CB	14:CN:98:ALA:CB	2.84	0.50
10:CJ:92:LEU:HD22	10:CJ:93:ALA:N	2.27	0.50
11:CK:115:ILE:HD12	21:CU:23:GLU:HG2	1.93	0.50
14:CN:40:ARG:HH12	19:CS:6:LYS:HB2	1.74	0.50
56:CP:32:PHE:C	56:CP:32:PHE:CD1	2.90	0.50
17:CQ:13:SER:CB	17:CQ:21:VAL:HB	2.41	0.50
22:DA:452:G:OP1	26:DE:53:THR:CG2	2.59	0.50
22:DA:502:A:N6	22:DA:505:A:C6	2.79	0.50
22:DA:974:G:H1'	22:DA:975:A:H8	1.77	0.50
22:DA:1536:C:OP2	22:DA:1536:C:C2	2.65	0.50
22:DA:1603:A:C2	22:DA:1604:C:C2	2.99	0.50
22:DA:1760:C:C2'	22:DA:1761:C:H6	2.10	0.50
22:DA:1802:A:N6	22:DA:1817:G:N2	2.60	0.50
22:DA:1895:C:C6	22:DA:1895:C:H3'	2.47	0.50
22:DA:1962:C:C4'	22:DA:1963:U:OP1	2.58	0.50
22:DA:2085:U:C2'	22:DA:2086:U:H5'	2.42	0.50
22:DA:2286:G:N7	49:D1:33:LEU:HD23	2.26	0.50
22:DA:2331:G:H1	22:DA:2385:C:N4	2.09	0.50
22:DA:2345:G:C5	22:DA:2381:A:C2	2.99	0.50
22:DA:2638:G:H2'	22:DA:2775:G:H22	1.76	0.50
22:DA:2751:G:H4'	28:DG:3:VAL:HG11	1.94	0.50
22:DA:2899:A:C2	22:DA:2900:A:C5	3.00	0.50
57:DB:8:C:O2'	36:DO:40:ILE:HD13	2.12	0.50
24:DC:173:LEU:HD22	24:DC:173:LEU:N	2.23	0.50
25:DD:98:VAL:HG23	25:DD:180:VAL:CG1	2.42	0.50
26:DE:144:GLU:O	26:DE:145:ASP:C	2.55	0.50
28:DG:84:LYS:HB3	28:DG:132:LEU:O	2.12	0.50
31:DJ:41:LYS:C	31:DJ:43:GLU:H	2.19	0.50
33:DL:84:LYS:O	33:DL:85:VAL:HB	2.11	0.50
40:DS:6:LYS:HZ1	40:DS:104:THR:HG23	1.74	0.50
40:DS:8:ARG:HB3	40:DS:102:HIS:CE1	2.46	0.50
44:DW:18:LYS:HZ2	44:DW:18:LYS:HA	1.77	0.50
44:DW:65:LYS:O	44:DW:81:ILE:HA	2.12	0.50
49:D1:51:ALA:O	49:D1:52:LYS:CB	2.56	0.50
1:AA:22:G:C1'	1:AA:914:A:N6	2.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:57:G:H2'	1:AA:58:C:O4'	2.12	0.50
1:AA:335:C:H2'	1:AA:336:A:C8	2.47	0.50
1:AA:772:U:O2'	1:AA:773:G:H5'	2.12	0.50
1:AA:1152:A:O2'	1:AA:1153:G:C5'	2.60	0.50
1:AA:1250:A:H2	1:AA:1370:G:H1'	1.77	0.50
1:AA:1416:G:H2'	1:AA:1417:G:H5'	1.94	0.50
1:AA:1520:C:H2'	1:AA:1521:C:C6	2.43	0.50
2:AB:102:ASN:O	2:AB:106:VAL:HG23	2.12	0.50
4:AD:89:LEU:HD21	4:AD:199:ILE:HD13	1.93	0.50
4:AD:94:GLU:HG2	4:AD:185:PRO:HG3	1.92	0.50
11:AK:81:LEU:HD22	11:AK:104:PHE:CD1	2.46	0.50
14:AN:22:LYS:CG	14:AN:23:ARG:N	2.59	0.50
15:AO:81:ILE:O	15:AO:85:GLY:N	2.44	0.50
16:AP:67:ILE:CG2	16:AP:72:ALA:HB2	2.41	0.50
18:AR:59:LYS:O	18:AR:60:ARG:C	2.54	0.50
21:AU:4:LYS:HD2	21:AU:4:LYS:C	2.36	0.50
22:BA:178:G:H8	22:BA:178:G:O5'	1.94	0.50
22:BA:279:A:H2'	22:BA:280:U:O4'	2.11	0.50
22:BA:483:A:C8	22:BA:484:C:C5	3.00	0.50
22:BA:685:A:C8	22:BA:773:U:C4	3.00	0.50
22:BA:2065:C:H2'	22:BA:2066:C:C6	2.46	0.50
22:BA:2362:C:C2'	22:BA:2363:G:H5'	2.42	0.50
22:BA:2602:A:H5''	22:BA:2603:G:C5'	2.42	0.50
22:BA:2823:A:C4	22:BA:2824:C:C5	3.00	0.50
26:BE:113:VAL:CG1	26:BE:114:ARG:N	2.75	0.50
27:BF:39:VAL:HG11	27:BF:49:LEU:HD13	1.92	0.50
29:BH:1:MET:HE1	45:BX:59:ASP:HB3	1.93	0.50
29:BH:49:ALA:O	29:BH:52:ALA:N	2.34	0.50
30:BI:21:PRO:HB2	30:BI:22:PRO:HD3	1.94	0.50
34:BM:47:GLU:O	34:BM:48:ALA:C	2.55	0.50
43:BV:5:ASN:ND2	43:BV:5:ASN:H	2.08	0.50
53:CA:181:A:H4'	53:CA:182:A:OP1	2.12	0.50
53:CA:428:G:C1'	53:CA:430:A:C8	2.94	0.50
53:CA:481:G:C4'	53:CA:482:A:OP1	2.51	0.50
53:CA:719:C:H3'	53:CA:720:C:C5	2.47	0.50
53:CA:755:G:C2	53:CA:756:C:C5	3.00	0.50
53:CA:861:G:H2'	53:CA:862:C:H6	1.77	0.50
53:CA:914:A:C2	53:CA:915:A:C4	3.00	0.50
53:CA:1207:G:H2'	53:CA:1208:C:H6	1.75	0.50
53:CA:1316:G:N2	53:CA:1318:A:C8	2.80	0.50
53:CA:1365:G:N2	53:CA:1366:C:C2	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:149:LYS:CE	3:CC:200:TRP:CE3	2.94	0.50
4:CD:84:ASN:CG	5:CE:101:GLY:HA3	2.37	0.50
4:CD:176:LYS:O	4:CD:176:LYS:HD2	2.12	0.50
54:CG:64:ALA:HB2	54:CG:126:ALA:CB	2.36	0.50
54:CG:100:MET:H	54:CG:100:MET:HE3	1.69	0.50
10:CJ:44:THR:HG23	10:CJ:70:HIS:CG	2.46	0.50
11:CK:14:GLN:HA	11:CK:76:TYR:O	2.12	0.50
14:CN:13:VAL:HG22	14:CN:59:GLN:CD	2.36	0.50
15:CO:69:LEU:HD13	15:CO:69:LEU:C	2.36	0.50
17:CQ:26:ARG:NH2	17:CQ:39:ARG:HG2	2.27	0.50
22:DA:3:U:H2'	22:DA:4:U:H6	1.77	0.50
22:DA:27:G:H1'	22:DA:513:A:H61	1.74	0.50
22:DA:35:G:C2'	22:DA:36:G:O5'	2.60	0.50
22:DA:46:G:C2	22:DA:47:C:C6	2.99	0.50
22:DA:75:G:O2'	22:DA:76:C:H6	1.94	0.50
22:DA:223:A:C5	22:DA:422:A:C8	3.00	0.50
22:DA:465:G:C4'	50:D2:16:HIS:HD2	2.24	0.50
22:DA:615:U:N3	26:DE:35:TYR:CE1	2.79	0.50
22:DA:991:C:O2'	22:DA:992:C:C5'	2.58	0.50
22:DA:1069:A:H4'	22:DA:1070:A:C5'	2.42	0.50
22:DA:1071:G:O6	22:DA:1089:A:C2	2.65	0.50
22:DA:1330:C:HO2'	22:DA:1331:G:P	2.34	0.50
22:DA:1345:C:O2'	22:DA:1346:G:O5'	2.30	0.50
22:DA:2049:G:N2	25:DD:161:MET:HE2	2.27	0.50
22:DA:2059:A:O3'	26:DE:64:GLY:HA2	2.11	0.50
22:DA:2226:C:O2'	22:DA:2227:A:C5'	2.60	0.50
22:DA:2311:A:H1'	58:DF:78:ILE:CD1	2.40	0.50
22:DA:2531:A:C4	22:DA:2532:G:C8	3.00	0.50
22:DA:2718:G:OP1	37:DP:97:TYR:HD1	1.95	0.50
22:DA:2746:U:C2'	22:DA:2747:G:H5'	2.42	0.50
22:DA:2800:A:N1	22:DA:2801:G:N3	2.60	0.50
24:DC:20:ASN:HB2	24:DC:23:LEU:HD22	1.94	0.50
31:DJ:106:LYS:HD2	31:DJ:119:PHE:CD2	2.46	0.50
36:DO:79:ALA:HB1	36:DO:114:GLY:HA3	1.94	0.50
36:DO:115:LEU:H	36:DO:115:LEU:CD1	2.12	0.50
40:DS:21:ALA:O	40:DS:74:ILE:HD13	2.11	0.50
42:DU:47:PRO:HB3	42:DU:54:PRO:HG2	1.90	0.50
49:D1:38:PHE:CD2	49:D1:39:ASP:N	2.80	0.50
1:AA:36:C:OP1	12:AL:119:LYS:HE3	2.12	0.49
1:AA:57:G:C2	1:AA:356:A:C2	3.00	0.49
1:AA:247:G:OP1	1:AA:247:G:H4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:394:G:C5	1:AA:395:C:C5	3.00	0.49
1:AA:603:U:H2'	1:AA:604:G:C8	2.47	0.49
1:AA:691:G:H2'	1:AA:692:U:H6	1.77	0.49
1:AA:748:G:O6	1:AA:749:A:N6	2.45	0.49
1:AA:875:U:O2'	8:AH:14:ARG:NH1	2.45	0.49
1:AA:1088:G:H21	1:AA:1167:A:N6	2.10	0.49
1:AA:1162:C:H2'	1:AA:1163:A:H8	1.77	0.49
1:AA:1507:A:C2	1:AA:1508:A:C4	3.00	0.49
2:AB:90:PHE:CE2	2:AB:148:GLY:HA3	2.47	0.49
5:AE:113:VAL:CG2	5:AE:140:ILE:CD1	2.88	0.49
7:AG:107:ALA:HA	7:AG:122:GLU:HG3	1.92	0.49
9:AI:9:GLY:CA	9:AI:80:HIS:CD2	2.91	0.49
11:AK:109:ILE:O	11:AK:110:THR:HG23	2.11	0.49
11:AK:111:ASP:CB	21:AU:19:LYS:HD3	2.42	0.49
16:AP:42:ILE:O	16:AP:43:ALA:HB3	2.12	0.49
22:BA:125:A:OP2	50:B2:19:ARG:NH2	2.44	0.49
22:BA:300:A:H2'	22:BA:334:C:H1'	1.93	0.49
22:BA:412:A:H2'	22:BA:413:C:C5'	2.42	0.49
22:BA:919:U:C6	22:BA:919:U:H3'	2.47	0.49
22:BA:1450:G:C6	22:BA:1451:C:C4	2.99	0.49
22:BA:1508:A:O2'	22:BA:1509:A:O4'	2.30	0.49
22:BA:1556:C:O2'	22:BA:1557:C:H5'	2.12	0.49
22:BA:1568:G:H4'	24:BC:58:LYS:CG	2.42	0.49
22:BA:1654:A:C1'	25:BD:118:PHE:CE1	2.95	0.49
22:BA:1789:A:P	24:BC:220:ARG:HH11	2.35	0.49
22:BA:1801:A:H3'	22:BA:1802:A:H5'	1.94	0.49
22:BA:1842:G:C4'	24:BC:242:HIS:CE1	2.94	0.49
22:BA:1943:U:O2	22:BA:1943:U:O4'	2.28	0.49
22:BA:2046:G:N2	22:BA:2623:G:H1'	2.27	0.49
22:BA:2068:U:H6	22:BA:2068:U:H5''	1.78	0.49
22:BA:2109:U:C4	22:BA:2181:U:O4	2.65	0.49
22:BA:2210:U:H6	22:BA:2210:U:OP1	1.95	0.49
22:BA:2519:U:H2'	22:BA:2541:A:H61	1.77	0.49
22:BA:2572:A:N7	25:BD:150:GLN:CB	2.74	0.49
25:BD:9:VAL:HG22	25:BD:26:VAL:CB	2.34	0.49
27:BF:35:LEU:CD1	27:BF:88:VAL:HB	2.42	0.49
32:BK:20:MET:C	32:BK:41:ILE:CD1	2.85	0.49
41:BT:70:HIS:HB3	41:BT:73:ARG:HB2	1.93	0.49
42:BU:30:SER:HB2	42:BU:32:LYS:HD3	1.94	0.49
47:BZ:24:LEU:O	47:BZ:27:GLY:N	2.44	0.49
53:CA:86:G:O2'	53:CA:87:C:OP2	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:86:G:O2'	53:CA:87:C:P	2.70	0.49
53:CA:497:G:O2'	53:CA:498:A:C5'	2.60	0.49
53:CA:505:G:C2	53:CA:506:G:C5	3.00	0.49
53:CA:765:G:C6	53:CA:812:G:C5	3.00	0.49
53:CA:933:G:P	54:CG:3:ARG:HD3	2.51	0.49
53:CA:1064:G:N2	53:CA:1190:G:O2'	2.44	0.49
53:CA:1158:C:O2	53:CA:1158:C:H2'	2.11	0.49
3:CC:10:ARG:O	3:CC:15:LYS:HB2	2.11	0.49
3:CC:148:ILE:HD13	3:CC:201:ILE:HD11	1.92	0.49
4:CD:123:MET:CE	4:CD:126:GLY:O	2.60	0.49
5:CE:79:THR:OG1	5:CE:121:ASN:ND2	2.45	0.49
54:CG:116:ALA:HA	54:CG:120:ALA:HB3	1.94	0.49
9:CI:70:GLY:O	9:CI:71:ILE:C	2.55	0.49
10:CJ:51:VAL:HB	14:CN:80:ARG:CB	2.39	0.49
11:CK:17:ASP:HA	11:CK:80:ASN:O	2.12	0.49
14:CN:47:LEU:CD1	14:CN:50:LEU:HD21	2.41	0.49
56:CP:68:SER:O	56:CP:71:VAL:HG13	2.12	0.49
17:CQ:20:ILE:HG21	17:CQ:52:CYS:HB3	1.93	0.49
18:CR:44:THR:OG1	18:CR:46:THR:HG22	2.12	0.49
19:CS:38:THR:HA	19:CS:69:LYS:HA	1.94	0.49
22:DA:122:G:O2'	22:DA:123:G:C5'	2.60	0.49
22:DA:301:G:O2'	22:DA:302:C:O5'	2.30	0.49
22:DA:303:G:O2'	22:DA:304:U:O5'	2.29	0.49
22:DA:584:C:C4	22:DA:585:G:C5	3.00	0.49
22:DA:627:A:N6	33:DL:111:ILE:HB	2.27	0.49
22:DA:637:A:O5'	33:DL:112:LEU:HD21	2.12	0.49
22:DA:685:A:H4'	22:DA:686:U:O5'	2.13	0.49
22:DA:732:C:C4	22:DA:733:G:C5	3.00	0.49
22:DA:946:C:H5'	22:DA:946:C:H6	1.77	0.49
22:DA:1192:G:C2'	22:DA:1193:G:H5'	2.41	0.49
22:DA:1462:C:C1'	22:DA:2702:G:H21	2.25	0.49
22:DA:1652:A:H2'	22:DA:1653:G:O4'	2.11	0.49
22:DA:1794:A:H2'	22:DA:1795:C:H6	1.77	0.49
22:DA:1826:G:H2'	22:DA:1827:U:O5'	2.12	0.49
22:DA:1904:G:C2'	22:DA:1905:C:H5'	2.42	0.49
22:DA:2020:A:H5'	48:D0:8:THR:CG2	2.42	0.49
22:DA:2314:A:N3	22:DA:2315:G:C8	2.80	0.49
22:DA:2345:G:C5	22:DA:2347:C:N4	2.80	0.49
22:DA:2439:A:H1'	22:DA:2587:A:H5'	1.94	0.49
22:DA:2641:G:H5''	31:DJ:78:THR:HB	1.94	0.49
22:DA:2825:G:H2'	22:DA:2826:A:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:52:A:O2'	57:DB:53:A:C8	2.58	0.49
57:DB:109:A:O2'	57:DB:110:C:H6	1.93	0.49
24:DC:143:VAL:HB	24:DC:153:LEU:HB3	1.94	0.49
58:DF:157:THR:HG21	58:DF:168:LEU:HD22	1.93	0.49
29:DH:125:THR:HB	29:DH:146:VAL:HG11	1.94	0.49
31:DJ:56:VAL:HG23	31:DJ:124:VAL:HA	1.92	0.49
35:DN:87:PHE:CD1	35:DN:90:ARG:HD2	2.47	0.49
37:DP:26:GLU:HB2	37:DP:86:LYS:HD3	1.94	0.49
38:DQ:71:ASN:HD21	38:DQ:106:THR:HG23	1.77	0.49
38:DQ:91:ARG:NH2	39:DR:11:GLN:O	2.45	0.49
39:DR:81:LYS:CD	39:DR:81:LYS:N	2.75	0.49
41:DT:8:LEU:CD2	41:DT:46:ALA:HA	2.41	0.49
41:DT:38:ALA:HB1	41:DT:81:LYS:HZ2	1.72	0.49
42:DU:20:LYS:HD2	42:DU:38:ILE:CD1	2.41	0.49
1:AA:487:A:H2'	1:AA:488:C:O4'	2.11	0.49
1:AA:529:G:O6	12:AL:45:ASN:HA	2.12	0.49
1:AA:654:G:C4'	8:AH:2:MET:HE1	2.42	0.49
1:AA:764:C:C2'	1:AA:765:G:H5'	2.42	0.49
1:AA:1303:C:C2'	1:AA:1304:G:C8	2.93	0.49
2:AB:146:SER:O	2:AB:147:LEU:HD23	2.11	0.49
5:AE:37:VAL:CG1	5:AE:116:VAL:CG2	2.86	0.49
5:AE:154:ALA:HB1	8:AH:65:PHE:CE2	2.47	0.49
11:AK:109:ILE:HB	21:AU:5:VAL:HG22	1.89	0.49
12:AL:20:VAL:O	12:AL:20:VAL:HG23	2.11	0.49
14:AN:50:LEU:CB	14:AN:51:PRO:HD2	2.38	0.49
22:BA:409:G:C2'	22:BA:410:G:H5'	2.42	0.49
22:BA:980:A:C6	22:BA:981:A:N1	2.80	0.49
22:BA:1084:A:C2'	22:BA:1085:A:H8	2.11	0.49
22:BA:1239:G:C2'	22:BA:1240:U:O5'	2.60	0.49
22:BA:1276:A:O2'	22:BA:1277:G:H5'	2.13	0.49
22:BA:1417:C:O2'	22:BA:1418:G:C5'	2.55	0.49
22:BA:1507:C:C5'	22:BA:1508:A:OP2	2.61	0.49
22:BA:2136:G:O6	22:BA:2156:G:C2	2.65	0.49
22:BA:2152:G:C2'	22:BA:2153:C:H5'	2.42	0.49
22:BA:2309:A:O2'	22:BA:2310:C:C5'	2.60	0.49
22:BA:2795:C:H2'	22:BA:2796:U:C6	2.47	0.49
29:BH:3:VAL:HB	29:BH:37:VAL:C	2.37	0.49
31:BJ:76:HIS:NE2	31:BJ:85:LYS:HB2	2.26	0.49
35:BN:40:LYS:O	35:BN:41:ALA:C	2.53	0.49
35:BN:75:ILE:HD12	35:BN:79:LEU:CD1	2.42	0.49
45:BX:5:GLN:HG3	45:BX:49:ARG:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:39:VAL:CG1	45:BX:46:VAL:CG2	2.90	0.49
46:BY:18:LEU:CD1	46:BY:22:LEU:CD2	2.90	0.49
53:CA:90:C:H2'	53:CA:91:U:C5	2.46	0.49
53:CA:238:A:H2'	53:CA:239:U:C4'	2.42	0.49
53:CA:665:A:N3	53:CA:732:C:H2'	2.28	0.49
53:CA:725:G:C4	53:CA:726:C:C5	3.00	0.49
53:CA:745:G:H2'	53:CA:746:A:H8	1.76	0.49
53:CA:1040:U:H2'	53:CA:1041:G:H5'	1.93	0.49
53:CA:1094:G:O2'	53:CA:1095:U:OP2	2.28	0.49
53:CA:1181:G:H2'	53:CA:1182:G:N7	2.27	0.49
53:CA:1219:A:C6	53:CA:1220:G:C5	3.00	0.49
2:CB:9:LEU:HD23	2:CB:9:LEU:N	2.25	0.49
3:CC:74:ILE:HG12	3:CC:74:ILE:O	2.12	0.49
4:CD:148:ALA:HB1	4:CD:151:GLN:HE22	1.78	0.49
5:CE:15:ILE:HB	5:CE:35:LEU:O	2.12	0.49
6:CF:8:PHE:CE2	6:CF:60:VAL:CG1	2.95	0.49
54:CG:30:MET:SD	54:CG:35:LYS:HB2	2.53	0.49
8:CH:58:LEU:CD2	8:CH:60:LEU:HD11	2.43	0.49
12:CL:42:LYS:CD	12:CL:43:LYS:NZ	2.75	0.49
12:CL:109:ARG:CB	12:CL:118:VAL:HG21	2.32	0.49
21:CU:19:LYS:C	21:CU:21:SER:H	2.20	0.49
22:DA:120:U:H1'	22:DA:149:A:C8	2.47	0.49
22:DA:155:A:C2'	22:DA:156:A:H5'	2.42	0.49
22:DA:157:C:C2	22:DA:158:U:C6	3.00	0.49
22:DA:325:G:O2'	22:DA:326:G:C5'	2.60	0.49
22:DA:352:A:N3	22:DA:353:C:H1'	2.28	0.49
22:DA:1330:C:O2'	22:DA:1331:G:O5'	2.29	0.49
22:DA:1335:C:H2'	22:DA:1336:A:C1'	2.42	0.49
22:DA:1810:A:H2'	22:DA:1811:G:C8	2.46	0.49
22:DA:1865:U:O4	22:DA:1875:G:C2	2.65	0.49
22:DA:2296:U:O2'	22:DA:2297:A:O5'	2.30	0.49
22:DA:2464:G:H2'	22:DA:2465:C:O4'	2.13	0.49
22:DA:2660:A:C2	22:DA:2661:G:N7	2.81	0.49
22:DA:2674:G:O3'	32:DK:30:ARG:HG2	2.11	0.49
57:DB:6:G:H4'	57:DB:28:C:H4'	1.94	0.49
25:DD:120:GLY:O	25:DD:124:ARG:HB2	2.12	0.49
58:DF:11:VAL:O	58:DF:13:LYS:HD2	2.12	0.49
58:DF:27:VAL:O	58:DF:27:VAL:HG23	2.12	0.49
29:DH:32:PRO:HA	45:DX:38:TRP:HD1	1.77	0.49
30:DI:79:LEU:HD13	30:DI:100:ILE:HG13	1.93	0.49
31:DJ:100:VAL:O	31:DJ:104:ALA:CB	2.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:33:VAL:O	39:DR:61:ALA:HB3	2.12	0.49
42:DU:82:VAL:HG23	42:DU:83:GLY:H	1.76	0.49
43:DV:4:ILE:CB	43:DV:63:ILE:HG13	2.37	0.49
46:DY:57:LEU:O	46:DY:60:LYS:HE3	2.12	0.49
1:AA:109:A:C6	1:AA:327:A:C6	3.01	0.49
1:AA:404:G:O2'	1:AA:405:U:H5'	2.12	0.49
1:AA:596:A:O2'	1:AA:597:G:C5'	2.60	0.49
1:AA:723:U:OP1	21:AU:48:LYS:HB2	2.13	0.49
1:AA:751:U:H2'	1:AA:752:G:O4'	2.11	0.49
1:AA:1032:G:H2'	1:AA:1033:G:C5'	2.42	0.49
1:AA:1394:A:C6	1:AA:1501:C:H4'	2.47	0.49
12:AL:76:HIS:O	12:AL:77:SER:CB	2.61	0.49
18:AR:27:THR:O	18:AR:30:ASN:HB2	2.12	0.49
22:BA:861:A:C2	22:BA:917:A:C4	3.00	0.49
22:BA:1031:G:H4'	52:B4:6:SER:HB2	1.93	0.49
22:BA:1247:A:C2	22:BA:1249:U:C6	3.00	0.49
22:BA:1398:C:H2'	22:BA:1399:C:C6	2.47	0.49
22:BA:1496:A:H2'	22:BA:1498:C:C4	2.47	0.49
22:BA:1859:U:H2'	22:BA:1860:G:C8	2.47	0.49
22:BA:1872:A:O2'	22:BA:1873:G:O4'	2.30	0.49
22:BA:2017:U:H4'	48:B0:4:GLN:O	2.13	0.49
22:BA:2109:U:N3	22:BA:2181:U:C4	2.80	0.49
22:BA:2262:U:H2'	22:BA:2263:C:C6	2.47	0.49
22:BA:2285:C:P	49:B1:5:ARG:HH21	2.35	0.49
22:BA:2507:C:H2'	22:BA:2508:G:H5''	1.95	0.49
23:BB:34:A:C2'	23:BB:35:C:OP2	2.60	0.49
23:BB:42:C:OP1	27:BF:63:LYS:HE2	2.13	0.49
25:BD:146:ILE:O	25:BD:146:ILE:HG13	2.12	0.49
27:BF:27:VAL:O	27:BF:27:VAL:CG1	2.61	0.49
28:BG:84:LYS:O	28:BG:85:LYS:HB2	2.11	0.49
36:BO:3:LYS:CG	36:BO:4:LYS:N	2.75	0.49
36:BO:40:ILE:HG22	36:BO:41:ALA:O	2.13	0.49
36:BO:55:GLU:OE1	36:BO:58:ILE:HD11	2.12	0.49
39:BR:76:LYS:O	39:BR:84:ARG:HA	2.12	0.49
44:BW:16:GLU:OE2	44:BW:16:GLU:CA	2.61	0.49
45:BX:38:TRP:HE3	45:BX:45:PHE:CD2	2.31	0.49
53:CA:130:A:HO2'	53:CA:263:A:HO2'	1.43	0.49
53:CA:451:A:C1'	53:CA:452:A:N7	2.73	0.49
53:CA:971:G:H5''	53:CA:972:C:H5''	1.94	0.49
53:CA:973:G:C6	53:CA:974:A:C6	2.99	0.49
53:CA:977:A:C8	53:CA:1223:C:N3	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:977:A:O2'	53:CA:1223:C:N4	2.40	0.49
53:CA:981:U:OP2	53:CA:982:U:H3'	2.13	0.49
53:CA:1000:A:C2	53:CA:1001:C:C4	3.00	0.49
53:CA:1098:C:H2'	53:CA:1099:G:O4'	2.12	0.49
53:CA:1138:G:H2'	53:CA:1139:G:OP1	2.11	0.49
4:CD:61:ARG:NH2	4:CD:67:LEU:HA	2.28	0.49
5:CE:130:THR:C	5:CE:135:VAL:CG2	2.85	0.49
54:CG:28:ILE:HG21	54:CG:100:MET:CG	2.39	0.49
8:CH:100:ILE:C	8:CH:100:ILE:CD1	2.85	0.49
9:CI:64:ILE:HD12	9:CI:64:ILE:N	2.27	0.49
10:CJ:30:LYS:HG2	10:CJ:36:VAL:CG2	2.41	0.49
11:CK:91:GLY:O	11:CK:92:ARG:C	2.56	0.49
12:CL:88:ASP:HB3	12:CL:89:LEU:HD22	1.93	0.49
55:CM:41:ASP:O	55:CM:42:VAL:HB	2.12	0.49
22:DA:95:A:C1'	46:DY:40:SER:HB2	2.34	0.49
22:DA:120:U:H4'	22:DA:121:G:H5'	1.94	0.49
22:DA:139:U:H2'	22:DA:139:U:O2	2.11	0.49
22:DA:152:A:H2'	22:DA:153:U:H5'	1.94	0.49
22:DA:163:C:O2'	22:DA:164:C:H5''	2.13	0.49
22:DA:674:G:H5''	26:DE:71:GLY:CA	2.43	0.49
22:DA:917:A:H2	57:DB:79:G:H21	1.60	0.49
22:DA:947:A:O2'	22:DA:948:C:O4'	2.28	0.49
22:DA:1010:A:P	38:DQ:65:ASN:HD22	2.35	0.49
22:DA:1044:C:O2	22:DA:1044:C:H2'	2.11	0.49
22:DA:1112:G:O2'	22:DA:1113:U:C5'	2.60	0.49
22:DA:1127:A:N7	22:DA:2488:G:O2'	2.41	0.49
22:DA:1526:C:N4	22:DA:1527:G:C6	2.80	0.49
22:DA:1683:U:O5'	22:DA:1683:U:H6	1.95	0.49
22:DA:1878:G:H2'	22:DA:1879:C:O4'	2.12	0.49
22:DA:2014:A:H2	22:DA:2613:U:C2	2.30	0.49
22:DA:2293:G:H2'	22:DA:2294:G:O4'	2.13	0.49
22:DA:2428:G:C2	33:DL:54:GLN:NE2	2.80	0.49
22:DA:2624:G:H1'	48:D0:18:HIS:HE1	1.78	0.49
57:DB:86:G:H2'	57:DB:87:U:C5'	2.41	0.49
57:DB:109:A:C5	57:DB:110:C:N4	2.81	0.49
24:DC:35:LYS:HB3	24:DC:35:LYS:HZ3	1.77	0.49
24:DC:66:PHE:HB3	24:DC:150:GLY:O	2.12	0.49
25:DD:119:ALA:CB	25:DD:163:GLY:O	2.60	0.49
26:DE:47:LYS:HD3	26:DE:51:GLU:HB3	1.93	0.49
26:DE:58:LYS:HB3	26:DE:60:TRP:NE1	2.24	0.49
29:DH:54:LEU:HA	29:DH:57:LYS:CG	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:32:VAL:HG22	30:DI:58:ILE:HG21	1.95	0.49
33:DL:63:LYS:C	33:DL:65:GLY:H	2.20	0.49
34:DM:136:MET:OXT	34:DM:136:MET:HG2	2.12	0.49
40:DS:70:LYS:HE3	40:DS:70:LYS:N	2.25	0.49
41:DT:11:LEU:HD12	41:DT:11:LEU:H	1.77	0.49
43:DV:6:ALA:HB3	43:DV:65:VAL:HB	1.95	0.49
46:DY:31:GLN:OE1	46:DY:37:LEU:HB2	2.12	0.49
49:D1:3:GLY:C	49:D1:5:ARG:H	2.20	0.49
1:AA:109:A:C6	1:AA:326:G:C6	3.01	0.49
1:AA:413:G:N2	1:AA:428:G:O2'	2.45	0.49
1:AA:420:U:C2'	1:AA:421:U:H5''	2.42	0.49
1:AA:562:U:H4'	1:AA:563:A:O5'	2.11	0.49
1:AA:994:A:O2'	1:AA:995:C:H5'	2.13	0.49
2:AB:95:TRP:O	2:AB:95:TRP:HE3	1.95	0.49
3:AC:113:LYS:HD3	3:AC:184:ASN:CG	2.37	0.49
11:AK:107:THR:HG22	11:AK:108:ASN:HD21	1.78	0.49
15:AO:23:SER:O	15:AO:26:VAL:HG23	2.13	0.49
20:AT:66:ILE:O	20:AT:70:LYS:HB3	2.12	0.49
21:AU:8:ASN:N	21:AU:8:ASN:HD22	2.10	0.49
22:BA:943:A:O2'	22:BA:944:C:H5'	2.12	0.49
22:BA:990:A:H8	22:BA:990:A:H5'	1.77	0.49
22:BA:1409:U:C2'	22:BA:1410:G:H5'	2.42	0.49
22:BA:1778:U:C4	22:BA:1784:A:C4	3.00	0.49
22:BA:2019:A:H2'	22:BA:2020:A:O5'	2.13	0.49
22:BA:2525:G:N2	22:BA:2539:C:C2	2.80	0.49
22:BA:2819:G:H5''	62:BA:3799:HOH:O	2.11	0.49
22:BA:2849:U:H1'	22:BA:2866:U:O2	2.11	0.49
24:BC:141:HIS:CD2	24:BC:192:GLY:O	2.65	0.49
24:BC:181:ARG:NH2	24:BC:265:PHE:HB3	2.27	0.49
27:BF:72:SER:HB2	27:BF:80:GLN:H	1.77	0.49
28:BG:112:VAL:HG23	28:BG:113:ASP:N	2.25	0.49
29:BH:29:PHE:O	29:BH:33:GLN:HB3	2.13	0.49
31:BJ:103:ILE:HD12	31:BJ:103:ILE:C	2.37	0.49
33:BL:76:GLU:C	33:BL:77:ILE:HD12	2.38	0.49
34:BM:4:PRO:CG	34:BM:70:ASP:HA	2.42	0.49
38:BQ:16:ILE:HG22	38:BQ:17:LEU:N	2.28	0.49
41:BT:21:SER:HA	41:BT:31:VAL:HG11	1.93	0.49
44:BW:17:ALA:O	44:BW:18:LYS:CB	2.59	0.49
45:BX:40:GLU:C	45:BX:42:GLU:N	2.67	0.49
49:B1:8:ILE:CG2	49:B1:9:LYS:H	2.24	0.49
50:B2:13:ASN:O	50:B2:17:GLY:HA3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:16:A:O2'	53:CA:17:U:H5'	2.12	0.49
53:CA:295:C:H2'	53:CA:296:U:H6	1.77	0.49
53:CA:343:U:O2'	53:CA:344:A:H8	1.95	0.49
53:CA:373:A:C2	53:CA:374:A:C8	3.00	0.49
53:CA:431:A:C2	53:CA:432:A:H1'	2.47	0.49
53:CA:476:U:C6	53:CA:476:U:OP2	2.65	0.49
53:CA:591:U:OP1	8:CH:30:LYS:HE3	2.12	0.49
53:CA:705:G:O2'	53:CA:706:A:H5'	2.11	0.49
53:CA:961:U:O4	53:CA:983:A:N6	2.46	0.49
53:CA:978:A:C4	53:CA:1319:A:C2	3.01	0.49
53:CA:1278:G:H8	53:CA:1278:G:OP2	1.95	0.49
53:CA:1408:A:N1	53:CA:1494:G:C6	2.79	0.49
2:CB:74:ALA:CB	2:CB:206:ILE:HD11	2.32	0.49
3:CC:117:ASP:HA	3:CC:120:THR:HB	1.94	0.49
4:CD:116:LEU:HD21	4:CD:153:ARG:HH11	1.77	0.49
4:CD:137:SER:HB2	4:CD:138:PRO:HD2	1.94	0.49
54:CG:35:LYS:NZ	54:CG:35:LYS:HB3	2.26	0.49
8:CH:62:LEU:N	8:CH:62:LEU:HD22	2.28	0.49
10:CJ:17:LEU:CD2	10:CJ:96:VAL:HG13	2.42	0.49
11:CK:57:SER:O	11:CK:90:PRO:HG3	2.12	0.49
11:CK:86:LYS:HA	11:CK:113:THR:OG1	2.12	0.49
14:CN:8:ARG:HH11	14:CN:12:ARG:NH2	2.10	0.49
15:CO:2:LEU:HD13	15:CO:34:GLN:HE21	1.77	0.49
22:DA:33:C:H4'	22:DA:34:U:OP1	2.08	0.49
22:DA:76:C:OP1	46:DY:48:ARG:HG2	2.13	0.49
22:DA:170:U:H6	22:DA:170:U:O5'	1.96	0.49
22:DA:426:C:H2'	22:DA:427:U:H5'	1.94	0.49
22:DA:477:A:O2'	22:DA:478:A:O4'	2.30	0.49
22:DA:479:A:O2'	22:DA:481:G:H5'	2.12	0.49
22:DA:745:G:C5'	22:DA:746:U:OP2	2.60	0.49
22:DA:910:A:H62	34:DM:12:MET:C	2.20	0.49
22:DA:996:A:C6	22:DA:1160:G:C2	3.01	0.49
22:DA:1144:A:H2'	22:DA:1145:C:C6	2.47	0.49
22:DA:1262:A:N3	48:D0:6:LYS:NZ	2.51	0.49
22:DA:1735:A:O2'	22:DA:1736:U:C5'	2.60	0.49
22:DA:2269:G:O3'	44:DW:18:LYS:HE2	2.13	0.49
22:DA:2316:G:H2'	22:DA:2317:A:C8	2.48	0.49
22:DA:2345:G:C4	22:DA:2347:C:H5	2.30	0.49
22:DA:2482:A:H2'	22:DA:2483:C:C6	2.46	0.49
22:DA:2652:C:C4	22:DA:2653:U:C4	3.01	0.49
22:DA:2834:G:C2'	22:DA:2879:A:H61	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2889:C:O2'	22:DA:2890:G:H5'	2.12	0.49
37:DP:50:ARG:CB	37:DP:56:SER:HB3	2.42	0.49
39:DR:48:LYS:HD2	39:DR:48:LYS:N	2.23	0.49
40:DS:59:GLU:CD	40:DS:66:ILE:HG23	2.37	0.49
46:DY:28:LEU:CG	46:DY:42:LEU:HD22	2.38	0.49
1:AA:77:A:N6	1:AA:90:C:C5	2.78	0.49
1:AA:212:G:H2'	1:AA:213:G:C8	2.47	0.49
1:AA:282:A:N3	1:AA:282:A:H2'	2.28	0.49
1:AA:367:U:O2'	1:AA:368:U:H4'	2.12	0.49
1:AA:404:G:N7	4:AD:1:ALA:CB	2.75	0.49
1:AA:464:U:C2	1:AA:466:A:C5'	2.95	0.49
1:AA:1124:G:H2'	1:AA:1145:A:H61	1.77	0.49
1:AA:1401:G:N2	1:AA:1402:C:H1'	2.27	0.49
1:AA:1487:G:O2'	1:AA:1488:G:H5'	2.13	0.49
2:AB:80:LYS:HG3	2:AB:90:PHE:CE1	2.47	0.49
2:AB:202:ASN:HD21	2:AB:205:ALA:HB2	1.73	0.49
3:AC:100:ILE:O	3:AC:100:ILE:HG23	2.12	0.49
5:AE:152:VAL:HG12	5:AE:155:LYS:NZ	2.28	0.49
9:AI:25:GLY:H	9:AI:58:GLU:HA	1.78	0.49
9:AI:57:VAL:HG12	9:AI:58:GLU:HG2	1.93	0.49
9:AI:110:VAL:HG23	9:AI:110:VAL:O	2.12	0.49
10:AJ:49:PHE:HE1	10:AJ:67:ILE:HG13	1.77	0.49
11:AK:51:PHE:HZ	11:AK:64:VAL:CG1	2.26	0.49
14:AN:53:ASP:HA	14:AN:58:ARG:HH11	1.77	0.49
19:AS:30:LEU:O	19:AS:49:ALA:HB3	2.13	0.49
20:AT:75:LYS:HB3	20:AT:75:LYS:HZ3	1.76	0.49
22:BA:1141:U:C5	31:BJ:65:THR:HG23	2.47	0.49
22:BA:1322:A:O3'	40:BS:84:ARG:NH1	2.45	0.49
22:BA:1338:G:O2'	22:BA:1339:G:H5'	2.13	0.49
22:BA:1385:A:C2	22:BA:1386:C:N3	2.81	0.49
22:BA:1416:G:O2'	22:BA:1417:C:H5''	2.12	0.49
22:BA:1416:G:O2'	22:BA:1417:C:P	2.71	0.49
22:BA:1430:G:H2'	22:BA:1431:A:O4'	2.11	0.49
22:BA:1483:G:C2	22:BA:1484:U:C2	3.00	0.49
22:BA:1696:G:H5''	22:BA:1696:G:C8	2.45	0.49
22:BA:2149:U:O2'	22:BA:2150:C:O5'	2.29	0.49
22:BA:2231:U:OP1	45:BX:29:LEU:CD2	2.61	0.49
22:BA:2414:G:H2'	22:BA:2415:G:H5'	1.94	0.49
22:BA:2462:C:H2'	22:BA:2463:C:C6	2.47	0.49
22:BA:2471:A:C2'	22:BA:2472:G:H5'	2.42	0.49
22:BA:2500:U:H6	22:BA:2500:U:C5'	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2681:C:C5	22:BA:2724:U:C5	3.00	0.49
22:BA:2865:U:C4	22:BA:2866:U:C4	3.01	0.49
26:BE:33:VAL:O	26:BE:34:ALA:C	2.55	0.49
28:BG:76:ILE:HG23	28:BG:77:GLY:N	2.26	0.49
29:BH:8:LYS:C	29:BH:13:GLY:HA3	2.37	0.49
29:BH:99:ILE:O	29:BH:99:ILE:CG2	2.61	0.49
45:BX:39:VAL:HG22	45:BX:44:ARG:O	2.11	0.49
53:CA:159:G:C5'	53:CA:160:A:OP2	2.60	0.49
53:CA:289:G:C2	53:CA:290:C:C5	3.00	0.49
53:CA:451:A:N6	53:CA:481:G:H5'	2.27	0.49
53:CA:754:C:O2	53:CA:754:C:C2'	2.55	0.49
53:CA:987:G:C2	53:CA:988:G:N7	2.81	0.49
53:CA:1074:G:H4'	2:CB:101:THR:O	2.12	0.49
53:CA:1213:A:C8	53:CA:1215:G:C5	3.00	0.49
4:CD:18:LEU:C	4:CD:20:LEU:H	2.21	0.49
54:CG:4:ARG:CG	54:CG:6:ILE:HG22	2.42	0.49
8:CH:100:ILE:HD12	8:CH:101:ALA:N	2.26	0.49
10:CJ:49:PHE:CE2	14:CN:73:LEU:HD13	2.47	0.49
56:CP:1:MET:CE	56:CP:1:MET:CA	2.89	0.49
56:CP:18:GLN:HE21	56:CP:35:ARG:CZ	2.25	0.49
56:CP:48:GLU:CD	56:CP:51:ARG:HB2	2.38	0.49
56:CP:54:LEU:HD23	56:CP:54:LEU:N	2.25	0.49
22:DA:196:A:N6	22:DA:831:G:H21	2.07	0.49
22:DA:319:G:C6	22:DA:333:G:C6	3.00	0.49
22:DA:519:U:H5''	40:DS:25:ARG:HH21	1.76	0.49
22:DA:528:A:C2	22:DA:2043:C:O5'	2.65	0.49
22:DA:581:C:C2	22:DA:582:A:N7	2.81	0.49
22:DA:976:G:H2'	22:DA:977:G:H8	1.77	0.49
22:DA:1056:G:O5'	22:DA:1085:A:C2	2.65	0.49
22:DA:1064:C:O2'	22:DA:1065:U:C5'	2.58	0.49
22:DA:1427:A:H4'	22:DA:1428:C:O5'	2.12	0.49
22:DA:1451:C:H1'	22:DA:1452:G:N7	2.27	0.49
22:DA:1905:C:O5'	22:DA:1905:C:H6	1.95	0.49
22:DA:2092:U:C5'	22:DA:2093:G:OP1	2.60	0.49
57:DB:68:C:O2'	57:DB:69:G:H5''	2.13	0.49
26:DE:105:LEU:HD23	26:DE:177:PRO:HG3	1.94	0.49
58:DF:28:PRO:HB2	58:DF:168:LEU:CD2	2.43	0.49
58:DF:49:LEU:HD13	58:DF:49:LEU:N	2.28	0.49
58:DF:113:PHE:HE2	58:DF:116:LEU:HD22	1.76	0.49
58:DF:118:ALA:HB2	58:DF:176:PHE:CB	2.42	0.49
28:DG:74:MET:O	28:DG:78:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:37:VAL:CG2	29:DH:38:PRO:HD2	2.42	0.49
30:DI:132:ALA:CA	30:DI:137:LEU:HD12	2.42	0.49
31:DJ:3:THR:CG2	38:DQ:60:TRP:HE1	2.24	0.49
31:DJ:141:ASP:C	31:DJ:142:ILE:HD12	2.37	0.49
32:DK:35:VAL:HG23	32:DK:36:GLY:N	2.16	0.49
35:DN:5:LYS:O	35:DN:6:SER:HB2	2.12	0.49
41:DT:69:ARG:NE	41:DT:70:HIS:CD2	2.81	0.49
49:D1:52:LYS:HB2	49:D1:52:LYS:NZ	2.26	0.49
50:D2:34:ARG:HB3	50:D2:42:LEU:CD1	2.30	0.49
51:D3:23:HIS:O	51:D3:46:LYS:HE3	2.12	0.49
52:D4:7:VAL:HG21	52:D4:25:VAL:HG23	1.95	0.49
1:AA:43:C:H2'	1:AA:44:A:O4'	2.12	0.49
1:AA:198:G:O2'	1:AA:199:A:O5'	2.30	0.49
1:AA:1098:C:C2	1:AA:1099:G:C8	2.99	0.49
1:AA:1215:G:HO2'	1:AA:1216:A:H5'	1.74	0.49
1:AA:1218:C:H2'	1:AA:1219:A:H8	1.72	0.49
1:AA:1343:G:C4'	9:AI:123:ARG:HB3	2.39	0.49
3:AC:63:ILE:CG2	3:AC:98:ALA:HB2	2.43	0.49
5:AE:82:HIS:CE1	8:AH:95:MET:CE	2.96	0.49
6:AF:9:MET:HE1	6:AF:59:TYR:CE2	2.47	0.49
8:AH:10:LEU:HD22	8:AH:74:ILE:HG12	1.95	0.49
9:AI:39:GLY:O	9:AI:40:ARG:HB2	2.12	0.49
13:AM:22:TYR:O	13:AM:22:TYR:CD2	2.66	0.49
13:AM:90:HIS:HA	13:AM:108:ARG:NH2	2.28	0.49
14:AN:15:LEU:O	14:AN:17:ASP:N	2.46	0.49
14:AN:32:ASP:O	14:AN:34:ASN:N	2.46	0.49
14:AN:46:LYS:C	14:AN:48:GLN:N	2.69	0.49
22:BA:21:A:O2'	22:BA:22:C:H5'	2.13	0.49
22:BA:80:G:C2'	22:BA:81:G:H5'	2.43	0.49
22:BA:181:A:H2'	22:BA:182:A:O4'	2.12	0.49
22:BA:216:A:C4	22:BA:217:A:C8	3.01	0.49
22:BA:239:C:N4	22:BA:240:C:N3	2.61	0.49
22:BA:316:C:H2'	22:BA:317:G:O5'	2.12	0.49
22:BA:644:A:H2'	22:BA:645:C:O4'	2.12	0.49
22:BA:831:G:O2'	22:BA:832:U:H5'	2.13	0.49
22:BA:893:C:O2'	22:BA:894:U:H5'	2.12	0.49
22:BA:1429:G:O2'	22:BA:1430:G:C5'	2.60	0.49
22:BA:1563:U:H2'	22:BA:1564:C:H6	1.73	0.49
22:BA:1782:U:O5'	22:BA:1782:U:H6	1.94	0.49
22:BA:1871:A:H8	22:BA:1872:A:C5	2.30	0.49
22:BA:2150:C:C2'	22:BA:2151:U:C6	2.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2272:U:H5''	22:BA:2273:A:OP1	2.12	0.49
22:BA:2297:A:C2	22:BA:2298:A:C8	3.01	0.49
22:BA:2485:G:H5'	34:BM:45:GLN:HE21	1.78	0.49
22:BA:2593:U:O2'	22:BA:2594:C:H5'	2.12	0.49
22:BA:2599:G:H2'	22:BA:2600:A:H5'	1.94	0.49
22:BA:2671:G:C2'	22:BA:2672:U:H5'	2.43	0.49
23:BB:42:C:O2'	23:BB:43:C:C5'	2.60	0.49
24:BC:254:LYS:O	24:BC:255:LYS:HB2	2.12	0.49
25:BD:97:SER:H	25:BD:99:GLU:CD	2.21	0.49
26:BE:124:PHE:CE2	26:BE:148:ILE:CD1	2.95	0.49
28:BG:27:GLY:O	28:BG:28:LYS:C	2.56	0.49
29:BH:78:VAL:CB	29:BH:145:ASN:HB3	2.42	0.49
29:BH:86:ASP:O	29:BH:87:GLU:C	2.55	0.49
30:BI:90:GLY:O	30:BI:92:PRO:HD3	2.12	0.49
33:BL:9:ALA:O	33:BL:12:SER:HB3	2.12	0.49
39:BR:25:LEU:N	39:BR:94:THR:HG23	2.23	0.49
39:BR:54:VAL:O	39:BR:54:VAL:CG2	2.60	0.49
40:BS:28:LYS:O	40:BS:29:VAL:C	2.56	0.49
40:BS:103:ILE:H	40:BS:103:ILE:HD12	1.78	0.49
41:BT:39:THR:CB	41:BT:42:GLU:H	2.26	0.49
41:BT:88:LYS:O	41:BT:89:GLU:HG2	2.12	0.49
44:BW:23:LYS:HD2	44:BW:24:ARG:HB3	1.95	0.49
47:BZ:9:THR:HG22	47:BZ:53:MET:C	2.38	0.49
53:CA:91:U:C6	53:CA:92:U:C5	3.00	0.49
53:CA:666:G:H5'	53:CA:726:C:H1'	1.94	0.49
53:CA:676:A:H2'	53:CA:677:U:C6	2.47	0.49
53:CA:684:U:O2'	11:CK:40:ALA:HB3	2.12	0.49
53:CA:808:C:C2'	53:CA:809:G:H5'	2.42	0.49
53:CA:1008:U:C4	53:CA:1022:A:C2	3.00	0.49
53:CA:1221:G:O3'	19:CS:76:THR:HB	2.13	0.49
53:CA:1386:G:C2	53:CA:1387:G:C8	3.00	0.49
2:CB:9:LEU:HG	2:CB:10:LYS:N	2.28	0.49
2:CB:79:VAL:HG13	2:CB:80:LYS:N	2.28	0.49
4:CD:33:ILE:O	4:CD:33:ILE:HG23	2.11	0.49
54:CG:7:GLY:O	54:CG:8:GLN:HB2	2.13	0.49
54:CG:34:LYS:HB2	54:CG:34:LYS:NZ	2.28	0.49
54:CG:88:VAL:CG2	54:CG:89:GLU:H	2.12	0.49
8:CH:74:ILE:O	8:CH:74:ILE:HG23	2.12	0.49
55:CM:96:VAL:HG12	55:CM:96:VAL:O	2.12	0.49
15:CO:32:THR:O	15:CO:33:ALA:C	2.55	0.49
22:DA:3:U:C4	22:DA:4:U:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:61:C:O2'	22:DA:62:U:C5'	2.49	0.49
22:DA:268:C:O2	22:DA:268:C:H2'	2.12	0.49
22:DA:307:G:N1	22:DA:310:A:OP2	2.45	0.49
22:DA:333:G:C2	22:DA:334:C:C5	3.01	0.49
22:DA:628:G:O2'	22:DA:629:G:C5'	2.60	0.49
22:DA:729:G:H3'	22:DA:730:A:C5'	2.40	0.49
22:DA:834:G:H2'	22:DA:835:C:O4'	2.12	0.49
22:DA:975:A:O2'	22:DA:976:G:H5'	2.12	0.49
22:DA:1200:C:O5'	22:DA:1200:C:H6	1.95	0.49
22:DA:1268:A:O2'	22:DA:1269:A:O4'	2.28	0.49
22:DA:1269:A:H2'	22:DA:1270:C:C6	2.47	0.49
22:DA:1290:C:C2	22:DA:1291:C:C5	3.01	0.49
22:DA:1337:G:N2	22:DA:1338:G:H1'	2.27	0.49
22:DA:1386:C:HO2'	22:DA:1387:A:H8	1.58	0.49
22:DA:1671:U:O2	22:DA:1673:G:H3'	2.12	0.49
22:DA:1895:C:H3'	22:DA:1895:C:H6	1.77	0.49
22:DA:1914:C:C6	22:DA:1915:U:C6	3.01	0.49
22:DA:2093:G:C2	22:DA:2094:A:C4	2.98	0.49
22:DA:2103:C:H2'	22:DA:2104:C:O4'	2.12	0.49
22:DA:2206:C:O2'	22:DA:2207:C:H5'	2.12	0.49
22:DA:2283:C:C5	22:DA:2389:G:C4	3.00	0.49
22:DA:2339:C:O2'	22:DA:2340:A:O5'	2.30	0.49
22:DA:2406:A:C2	33:DL:69:ARG:NH2	2.80	0.49
22:DA:2458:G:H5''	22:DA:2459:A:OP1	2.13	0.49
22:DA:2461:A:N1	22:DA:2490:G:N2	2.60	0.49
22:DA:2619:C:OP1	25:DD:157:LYS:HE2	2.12	0.49
22:DA:2634:A:H2'	22:DA:2635:A:C8	2.47	0.49
22:DA:2753:A:O2'	22:DA:2754:U:H5'	2.12	0.49
22:DA:2869:G:C5	22:DA:2870:C:C4	3.00	0.49
22:DA:2875:C:O2'	22:DA:2876:G:H5'	2.11	0.49
57:DB:57:A:C5	58:DF:25:MET:HB2	2.47	0.49
25:DD:151:THR:CG2	25:DD:152:PRO:HD3	2.37	0.49
58:DF:103:ILE:H	58:DF:107:VAL:HG13	1.78	0.49
28:DG:8:VAL:O	28:DG:9:VAL:HB	2.13	0.49
34:DM:136:MET:HE1	43:DV:74:ALA:O	2.13	0.49
37:DP:112:ARG:O	37:DP:113:LEU:HB3	2.12	0.49
41:DT:9:LYS:O	41:DT:9:LYS:CG	2.58	0.49
41:DT:29:THR:CB	41:DT:86:THR:N	2.71	0.49
44:DW:25:PHE:O	44:DW:27:GLY:N	2.38	0.49
1:AA:255:G:H2'	1:AA:256:U:C6	2.48	0.49
1:AA:368:U:O2'	1:AA:369:G:P	2.70	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:903:G:C5	1:AA:904:U:C5	3.00	0.49
1:AA:1316:G:H5''	1:AA:1317:C:OP2	2.13	0.49
1:AA:1521:C:C2	1:AA:1522:U:C5	3.01	0.49
4:AD:11:SER:HA	4:AD:18:LEU:CD1	2.39	0.49
4:AD:191:SER:O	4:AD:192:ALA:HB2	2.11	0.49
6:AF:6:ILE:HB	6:AF:62:MET:HB3	1.95	0.49
8:AH:93:LYS:HB3	8:AH:116:ARG:HH22	1.76	0.49
14:AN:65:GLN:HG3	14:AN:78:LEU:HD21	1.95	0.49
22:BA:68:G:N2	22:BA:74:A:C4	2.81	0.49
22:BA:223:A:H2	22:BA:407:G:N3	2.11	0.49
22:BA:579:G:H5''	22:BA:2018:G:OP2	2.13	0.49
22:BA:592:A:N3	51:B3:3:ILE:HD11	2.28	0.49
22:BA:603:A:C4'	22:BA:604:G:O5'	2.59	0.49
22:BA:640:C:H2'	22:BA:641:U:C6	2.48	0.49
22:BA:919:U:H2'	22:BA:920:A:O4'	2.12	0.49
22:BA:1246:A:C2'	22:BA:1247:A:O5'	2.61	0.49
22:BA:1384:A:H1'	22:BA:1405:U:C1'	2.42	0.49
22:BA:1638:C:H4'	22:BA:2710:C:O2	2.13	0.49
22:BA:2149:U:C2'	22:BA:2150:C:O5'	2.61	0.49
22:BA:2393:U:O3'	33:BL:62:PRO:HA	2.12	0.49
23:BB:43:C:C2'	23:BB:44:G:H5'	2.42	0.49
24:BC:20:ASN:CG	24:BC:23:LEU:HD23	2.38	0.49
25:BD:72:GLY:O	25:BD:73:VAL:O	2.30	0.49
25:BD:149:ASN:CG	25:BD:150:GLN:H	2.20	0.49
25:BD:175:LEU:HD23	25:BD:190:LYS:HB3	1.94	0.49
27:BF:167:ALA:O	27:BF:170:ALA:HB3	2.12	0.49
29:BH:67:ALA:O	29:BH:69:ALA:N	2.43	0.49
29:BH:76:GLU:HG2	29:BH:106:ALA:HB2	1.94	0.49
29:BH:108:VAL:HG12	29:BH:109:GLU:N	2.27	0.49
33:BL:111:ILE:HD12	33:BL:128:THR:CG2	2.42	0.49
38:BQ:91:ARG:NE	39:BR:11:GLN:H	2.11	0.49
38:BQ:96:ASP:C	38:BQ:98:ALA:H	2.18	0.49
39:BR:51:VAL:CB	39:BR:52:PRO:CD	2.74	0.49
40:BS:88:ARG:CG	40:BS:88:ARG:NH2	2.48	0.49
42:BU:5:ARG:HH21	42:BU:5:ARG:CG	2.26	0.49
44:BW:30:VAL:O	44:BW:30:VAL:CG2	2.58	0.49
46:BY:6:LEU:HD13	46:BY:56:LEU:HD11	1.93	0.49
46:BY:46:VAL:O	46:BY:47:ARG:C	2.54	0.49
53:CA:115:G:C2	53:CA:289:G:N7	2.80	0.49
53:CA:448:A:C4	53:CA:487:A:C2	3.00	0.49
53:CA:519:C:C2'	53:CA:520:A:H8	2.16	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:604:G:C2	53:CA:635:A:C2	3.01	0.49
53:CA:944:G:H3'	53:CA:945:G:H5'	1.95	0.49
53:CA:1086:U:C6	53:CA:1086:U:C5'	2.81	0.49
53:CA:1211:U:O2'	53:CA:1213:A:C2	2.65	0.49
53:CA:1236:A:H2'	53:CA:1237:C:C6	2.48	0.49
53:CA:1361:G:H2'	53:CA:1362:A:C5'	2.40	0.49
9:CI:96:GLU:CA	9:CI:99:LYS:HE2	2.43	0.49
12:CL:115:LYS:O	12:CL:116:TYR:CG	2.66	0.49
14:CN:68:ARG:NH1	14:CN:80:ARG:HH12	2.11	0.49
14:CN:72:PHE:CD1	14:CN:72:PHE:C	2.90	0.49
22:DA:8:C:H2'	22:DA:9:G:H5'	1.94	0.49
22:DA:120:U:O4	22:DA:177:G:C8	2.66	0.49
22:DA:251:A:H4'	33:DL:47:ARG:HH22	1.78	0.49
22:DA:271:G:O2'	22:DA:272:A:O4'	2.29	0.49
22:DA:459:U:C5	22:DA:469:G:N2	2.81	0.49
22:DA:712:G:C2	22:DA:720:U:O2	2.65	0.49
22:DA:858:G:C5	22:DA:2268:A:N1	2.81	0.49
22:DA:1130:U:O2'	22:DA:1131:G:C8	2.64	0.49
22:DA:1312:U:O2'	22:DA:1313:U:OP2	2.29	0.49
22:DA:1594:U:H2'	22:DA:1595:C:O4'	2.12	0.49
22:DA:1649:G:O2'	22:DA:1650:A:H8	1.96	0.49
22:DA:1654:A:HO2'	22:DA:1655:A:H8	1.59	0.49
22:DA:1668:A:O4'	22:DA:1669:A:C2	2.66	0.49
22:DA:1737:G:H5'	22:DA:1738:G:OP2	2.12	0.49
22:DA:1813:G:C2	24:DC:49:THR:HB	2.48	0.49
22:DA:1853:A:H1'	22:DA:2234:G:H5'	1.94	0.49
22:DA:2845:U:H2'	22:DA:2846:G:O4'	2.13	0.49
22:DA:2891:U:O2'	22:DA:2892:G:H5'	2.12	0.49
25:DD:99:GLU:HG3	25:DD:100:LEU:N	2.27	0.49
25:DD:183:GLU:H	25:DD:183:GLU:CD	2.20	0.49
32:DK:11:ALA:CB	32:DK:64:ARG:NH1	2.76	0.49
33:DL:132:ARG:HA	33:DL:135:ILE:CG2	2.42	0.49
34:DM:69:PRO:O	34:DM:70:ASP:HB3	2.12	0.49
35:DN:97:ILE:HD11	35:DN:99:LYS:NZ	2.28	0.49
37:DP:60:VAL:HG12	37:DP:60:VAL:O	2.12	0.49
37:DP:102:ARG:HB3	37:DP:107:ALA:N	2.28	0.49
1:AA:246:A:C5	1:AA:282:A:N6	2.80	0.49
1:AA:275:G:C2'	1:AA:276:G:H5'	2.42	0.49
1:AA:377:G:H5'	16:AP:5:ARG:NH1	2.27	0.49
1:AA:466:A:C5'	1:AA:467:U:OP2	2.61	0.49
1:AA:513:C:H2'	1:AA:514:C:C5	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:697:U:O2	1:AA:798:U:H1'	2.13	0.49
1:AA:900:A:N1	1:AA:901:A:C2	2.81	0.49
1:AA:1033:G:H2'	1:AA:1034:G:H5''	1.95	0.49
1:AA:1064:G:H1'	1:AA:1066:C:C6	2.48	0.49
1:AA:1241:G:N2	1:AA:1242:G:C4	2.80	0.49
2:AB:32:GLY:HA3	2:AB:39:ILE:CG1	2.38	0.49
2:AB:119:GLN:HA	2:AB:122:ASP:HB2	1.93	0.49
3:AC:125:ARG:O	3:AC:126:ARG:HB3	2.12	0.49
4:AD:53:GLN:HE21	4:AD:202:LEU:HA	1.77	0.49
5:AE:153:ALA:N	5:AE:156:ARG:HB2	2.26	0.49
6:AF:38:ARG:HG2	6:AF:38:ARG:NH1	2.26	0.49
8:AH:48:PHE:CD2	8:AH:49:LYS:N	2.81	0.49
8:AH:82:LEU:HD22	8:AH:82:LEU:C	2.38	0.49
10:AJ:17:LEU:HD21	10:AJ:96:VAL:CG2	2.42	0.49
10:AJ:52:LEU:HA	10:AJ:62:ARG:HA	1.95	0.49
15:AO:74:VAL:O	15:AO:77:TYR:HB3	2.13	0.49
22:BA:41:C:C2'	22:BA:42:A:O5'	2.61	0.49
22:BA:63:A:O2'	22:BA:64:A:H5'	2.12	0.49
22:BA:615:U:H4'	22:BA:616:A:OP2	2.13	0.49
22:BA:745:G:H2'	22:BA:746:U:H5'	1.94	0.49
22:BA:753:A:H2'	22:BA:754:U:H6	1.78	0.49
22:BA:799:G:C6	22:BA:800:A:C6	3.01	0.49
22:BA:1266:G:H5''	40:BS:15:GLN:NE2	2.27	0.49
22:BA:1872:A:HO2'	22:BA:1873:G:C4'	2.26	0.49
22:BA:2076:U:O5'	22:BA:2076:U:O2	2.31	0.49
22:BA:2332:C:OP1	44:BW:44:PHE:CZ	2.64	0.49
22:BA:2516:A:O2'	22:BA:2517:C:H5'	2.13	0.49
22:BA:2628:C:O2'	22:BA:2781:A:H2'	2.13	0.49
22:BA:2799:A:C6	22:BA:2801:G:C5	3.01	0.49
24:BC:131:MET:HG2	24:BC:134:ILE:HD12	1.94	0.49
24:BC:219:VAL:CG1	24:BC:224:MET:HE2	2.42	0.49
25:BD:34:VAL:HG23	25:BD:34:VAL:O	2.13	0.49
26:BE:19:PHE:O	26:BE:113:VAL:HG11	2.12	0.49
26:BE:153:LEU:C	26:BE:153:LEU:CD1	2.79	0.49
28:BG:33:THR:H	28:BG:34:ARG:HD3	1.77	0.49
33:BL:28:GLY:O	33:BL:29:LYS:HB3	2.11	0.49
34:BM:31:PHE:CE2	34:BM:110:GLU:HG2	2.47	0.49
37:BP:5:LYS:O	37:BP:9:GLN:HG2	2.13	0.49
44:BW:51:GLY:O	44:BW:52:CYS:O	2.31	0.49
44:BW:67:LYS:HG3	44:BW:69:GLU:HG3	1.93	0.49
53:CA:36:C:OP1	12:CL:119:LYS:HE3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:218:U:H2'	53:CA:219:U:O4'	2.11	0.49
53:CA:428:G:H1'	53:CA:430:A:N7	2.28	0.49
53:CA:729:A:H2'	53:CA:730:G:O4'	2.13	0.49
53:CA:935:A:N6	54:CG:2:ARG:CZ	2.75	0.49
53:CA:1138:G:C2'	53:CA:1139:G:OP1	2.61	0.49
53:CA:1249:C:C2'	53:CA:1250:A:H5''	2.28	0.49
53:CA:1269:A:H2	53:CA:1312:G:H21	1.61	0.49
53:CA:1462:C:H2'	53:CA:1463:U:C6	2.47	0.49
53:CA:1525:G:H5''	21:CU:37:TYR:CD1	2.48	0.49
2:CB:69:VAL:HG23	2:CB:161:PHE:O	2.13	0.49
4:CD:102:TYR:C	4:CD:104:MET:N	2.71	0.49
4:CD:165:GLU:O	4:CD:166:LYS:HB3	2.12	0.49
8:CH:54:THR:HG23	8:CH:55:LYS:N	2.27	0.49
9:CI:118:ARG:HG3	9:CI:124:PRO:HG3	1.95	0.49
10:CJ:63:ASP:OD2	14:CN:84:ARG:NH1	2.46	0.49
14:CN:8:ARG:HD2	14:CN:12:ARG:NH2	2.27	0.49
14:CN:53:ASP:HA	14:CN:58:ARG:HD3	1.94	0.49
19:CS:40:PHE:CB	19:CS:41:PRO:CD	2.78	0.49
22:DA:83:A:OP2	42:DU:91:LYS:HE3	2.12	0.49
22:DA:156:A:H2'	22:DA:157:C:H6	1.77	0.49
22:DA:191:A:N1	62:DA:3336:HOH:O	2.34	0.49
22:DA:299:A:C2	22:DA:319:G:N3	2.81	0.49
22:DA:309:A:H1'	22:DA:329:G:C4	2.48	0.49
22:DA:627:A:C2	22:DA:637:A:C4	3.01	0.49
22:DA:659:G:H4'	26:DE:95:LYS:CD	2.43	0.49
22:DA:845:A:N1	22:DA:932:U:O2	2.46	0.49
22:DA:983:A:N6	22:DA:984:A:C2	2.81	0.49
22:DA:1178:C:C2	22:DA:1179:G:C8	3.01	0.49
22:DA:1356:G:N2	22:DA:1357:C:H1'	2.27	0.49
22:DA:1492:G:H3'	22:DA:1493:C:H5''	1.82	0.49
22:DA:1598:A:O2'	22:DA:1599:U:H5'	2.13	0.49
22:DA:1682:G:C2	22:DA:1757:A:O4'	2.66	0.49
22:DA:1695:G:H2'	22:DA:1695:G:N3	2.27	0.49
22:DA:1982:U:O5'	22:DA:1982:U:C6	2.65	0.49
22:DA:2230:G:O4'	45:DX:31:ASN:HB3	2.12	0.49
22:DA:2250:G:C2	34:DM:82:MET:HB2	2.48	0.49
22:DA:2330:G:H1'	44:DW:38:ARG:HB3	1.94	0.49
22:DA:2860:A:H8	22:DA:2860:A:O5'	1.96	0.49
24:DC:16:VAL:HG23	24:DC:203:VAL:CG1	2.42	0.49
24:DC:64:VAL:HG12	24:DC:64:VAL:O	2.13	0.49
24:DC:67:LYS:HB3	24:DC:150:GLY:HA2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:102:ILE:HB	28:DG:114:HIS:O	2.13	0.49
30:DI:113:ALA:HB1	30:DI:124:MET:CG	2.41	0.49
31:DJ:111:LYS:HB2	31:DJ:115:GLY:H	1.74	0.49
33:DL:94:THR:O	33:DL:98:ALA:N	2.46	0.49
36:DO:26:LEU:HD23	36:DO:92:PHE:CD1	2.48	0.49
39:DR:81:LYS:O	39:DR:82:HIS:C	2.56	0.49
40:DS:32:ALA:HA	40:DS:35:ILE:HD11	1.94	0.49
42:DU:86:PHE:CG	42:DU:87:GLU:N	2.81	0.49
43:DV:41:GLU:C	43:DV:42:LEU:HG	2.37	0.49
45:DX:1:SER:C	45:DX:3:VAL:N	2.71	0.49
47:DZ:5:LYS:HE2	47:DZ:57:GLU:OE2	2.13	0.49
1:AA:450:G:N7	1:AA:481:G:O6	2.46	0.49
1:AA:722:G:H5''	1:AA:722:G:N3	2.27	0.49
1:AA:790:A:C6	1:AA:791:G:C6	3.01	0.49
1:AA:1134:G:O6	1:AA:1141:C:N4	2.46	0.49
1:AA:1507:A:H2'	1:AA:1508:A:C8	2.47	0.49
2:AB:95:TRP:CH2	2:AB:100:LEU:HB2	2.48	0.49
2:AB:105:THR:HA	2:AB:108:GLN:HE22	1.78	0.49
4:AD:172:VAL:CG2	4:AD:173:ASP:H	2.08	0.49
5:AE:93:VAL:HG13	5:AE:94:PHE:N	2.27	0.49
5:AE:134:ASN:O	5:AE:137:ARG:HB3	2.13	0.49
7:AG:77:ARG:NE	7:AG:77:ARG:HA	2.28	0.49
13:AM:36:ALA:CB	13:AM:38:ILE:HG12	2.41	0.49
22:BA:418:C:H2'	22:BA:419:U:O4'	2.12	0.49
22:BA:483:A:H2'	22:BA:484:C:H5'	1.95	0.49
22:BA:594:U:H2'	22:BA:595:C:H6	1.76	0.49
22:BA:638:G:C8	22:BA:651:G:N2	2.81	0.49
22:BA:665:U:H2'	22:BA:666:A:C8	2.48	0.49
22:BA:1206:G:C6	22:BA:1207:C:C4	3.01	0.49
22:BA:1250:G:OP2	33:BL:21:ARG:NH2	2.45	0.49
22:BA:1567:G:H2'	24:BC:84:PRO:HG3	1.94	0.49
22:BA:1724:G:C2'	22:BA:1725:U:H5'	2.43	0.49
22:BA:1786:A:H1'	22:BA:1938:A:N6	2.28	0.49
22:BA:1814:G:H2'	22:BA:1815:A:C8	2.47	0.49
22:BA:1848:A:O2'	22:BA:1849:G:H5'	2.12	0.49
22:BA:2136:G:N3	22:BA:2137:U:C4	2.81	0.49
24:BC:173:LEU:O	24:BC:180:MET:HA	2.13	0.49
24:BC:195:GLY:O	24:BC:196:ASN:HB3	2.13	0.49
25:BD:110:THR:O	25:BD:201:LEU:HD12	2.12	0.49
26:BE:6:LYS:HG2	26:BE:7:ASP:N	2.26	0.49
26:BE:118:LEU:HD23	26:BE:186:VAL:HG13	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:119:ILE:HD13	26:BE:119:ILE:H	1.78	0.49
27:BF:39:VAL:HG11	27:BF:42:ALA:CB	2.42	0.49
33:BL:77:ILE:HG12	33:BL:95:LEU:CD1	2.42	0.49
39:BR:48:LYS:HD2	39:BR:48:LYS:N	2.27	0.49
44:BW:39:GLN:O	44:BW:41:GLY:N	2.46	0.49
53:CA:38:G:C2	53:CA:397:A:C2	3.01	0.49
53:CA:211:G:H2'	53:CA:211:G:N3	2.27	0.49
53:CA:274:A:H4'	53:CA:275:G:O5'	2.12	0.49
53:CA:624:C:C2'	53:CA:625:U:H5'	2.42	0.49
53:CA:913:A:OP1	12:CL:43:LYS:HE3	2.13	0.49
53:CA:1200:C:O2'	53:CA:1201:A:P	2.71	0.49
5:CE:80:LEU:HD21	5:CE:143:LEU:CD2	2.42	0.49
6:CF:3:HIS:ND1	6:CF:92:THR:CG2	2.70	0.49
11:CK:44:ALA:CB	11:CK:69:CYS:HB2	2.25	0.49
55:CM:13:HIS:CB	55:CM:16:ILE:HD13	2.38	0.49
56:CP:61:VAL:C	56:CP:63:GLN:H	2.19	0.49
19:CS:32:THR:O	19:CS:32:THR:HG23	2.13	0.49
22:DA:37:C:H2'	22:DA:38:A:O4'	2.13	0.49
22:DA:116:C:H5''	22:DA:128:C:N4	2.26	0.49
22:DA:303:G:O2'	22:DA:304:U:C5'	2.61	0.49
22:DA:315:G:H2'	22:DA:316:C:O4'	2.13	0.49
22:DA:533:G:C2	22:DA:534:U:C2	3.00	0.49
22:DA:620:G:H8	22:DA:622:G:O6	1.95	0.49
22:DA:664:G:H4'	22:DA:941:A:P	2.53	0.49
22:DA:818:G:H2'	22:DA:819:A:H5''	1.93	0.49
22:DA:1205:A:N7	26:DE:165:HIS:ND1	2.61	0.49
22:DA:1249:U:H4'	38:DQ:3:VAL:HB	1.94	0.49
22:DA:1512:C:C4	22:DA:1513:U:C4	3.01	0.49
22:DA:1565:C:O2'	22:DA:1566:A:C2'	2.44	0.49
22:DA:1865:U:O4	22:DA:1875:G:C4	2.65	0.49
22:DA:1936:A:H2	22:DA:1943:U:O4	1.96	0.49
22:DA:2135:A:C2'	22:DA:2136:G:H5''	2.40	0.49
22:DA:2321:U:O2	22:DA:2321:U:O5'	2.30	0.49
22:DA:2360:G:C1'	33:DL:60:ARG:NH2	2.69	0.49
22:DA:2461:A:H1'	22:DA:2492:U:O2	2.12	0.49
22:DA:2637:U:H2'	22:DA:2638:G:H5'	1.93	0.49
22:DA:2675:A:C2	22:DA:2676:C:C2	3.01	0.49
22:DA:2710:C:OP1	35:DN:15:SER:HB2	2.13	0.49
22:DA:2714:G:C5	22:DA:2715:C:C5	3.00	0.49
22:DA:2747:G:O2'	28:DG:66:THR:HG22	2.13	0.49
22:DA:2776:A:H1'	22:DA:2778:A:O2'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2882:A:OP1	35:DN:96:ARG:CD	2.61	0.49
24:DC:255:LYS:C	24:DC:256:THR:CG2	2.78	0.49
26:DE:132:LYS:O	26:DE:132:LYS:HG2	2.13	0.49
26:DE:149:ILE:O	26:DE:149:ILE:HG12	2.11	0.49
58:DF:104:THR:H	58:DF:107:VAL:HG22	1.77	0.49
58:DF:105:ILE:C	58:DF:108:PRO:HD2	2.37	0.49
28:DG:1:SER:C	28:DG:3:VAL:N	2.71	0.49
31:DJ:45:THR:N	31:DJ:46:PRO:CD	2.76	0.49
31:DJ:100:VAL:O	31:DJ:104:ALA:HB2	2.12	0.49
33:DL:17:LYS:HE2	33:DL:19:LEU:HD13	1.94	0.49
34:DM:69:PRO:HA	34:DM:94:ALA:HB2	1.94	0.49
35:DN:75:ILE:O	35:DN:79:LEU:HB2	2.12	0.49
36:DO:7:ARG:HD2	36:DO:97:PHE:CZ	2.48	0.49
37:DP:13:LYS:HD2	37:DP:13:LYS:H	1.78	0.49
40:DS:1:MET:HE2	40:DS:1:MET:CA	2.43	0.49
40:DS:6:LYS:HB3	40:DS:6:LYS:HZ3	1.77	0.49
45:DX:51:SER:OG	45:DX:54:GLY:HA3	2.13	0.49
46:DY:57:LEU:CD1	46:DY:60:LYS:CE	2.91	0.49
50:D2:34:ARG:CB	50:D2:42:LEU:HD11	2.31	0.49
1:AA:428:G:C5	1:AA:430:A:C6	3.01	0.49
1:AA:507:C:C4	1:AA:508:U:C4	3.01	0.49
1:AA:597:G:H2'	1:AA:598:U:H6	1.78	0.49
1:AA:644:U:C2'	1:AA:645:G:H5'	2.43	0.49
1:AA:826:C:H5'	8:AH:12:ARG:HE	1.78	0.49
1:AA:955:U:H6	1:AA:955:U:O5'	1.96	0.49
1:AA:1009:U:O2'	1:AA:1010:U:H5'	2.12	0.49
1:AA:1026:G:C6	1:AA:1027:C:N4	2.81	0.49
1:AA:1138:G:N3	1:AA:1138:G:C2'	2.55	0.49
2:AB:20:ARG:HH12	2:AB:38:HIS:CE1	2.31	0.49
2:AB:145:ASN:OD1	2:AB:145:ASN:C	2.56	0.49
3:AC:151:GLU:HG2	3:AC:151:GLU:O	2.13	0.49
4:AD:30:LYS:HD3	4:AD:30:LYS:N	2.27	0.49
5:AE:82:HIS:CE1	8:AH:95:MET:HE2	2.47	0.49
7:AG:69:ARG:CG	7:AG:95:ARG:HG2	2.42	0.49
7:AG:107:ALA:CA	7:AG:122:GLU:HG3	2.43	0.49
8:AH:94:VAL:HG12	8:AH:95:MET:HG3	1.95	0.49
9:AI:53:LEU:HD12	9:AI:53:LEU:N	2.27	0.49
11:AK:42:GLY:HA3	11:AK:73:VAL:HG12	1.95	0.49
12:AL:23:LEU:C	12:AL:25:ALA:H	2.20	0.49
13:AM:3:ILE:H	13:AM:56:ARG:HH12	1.60	0.49
17:AQ:12:VAL:CG1	17:AQ:16:MET:CE	2.90	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:261:G:C2	22:BA:262:A:C8	3.01	0.49
22:BA:308:G:O2'	22:BA:309:A:H5'	2.12	0.49
22:BA:571:U:O3'	39:BR:80:ARG:NH2	2.46	0.49
22:BA:593:U:H2'	22:BA:594:U:C6	2.48	0.49
22:BA:1652:A:OP1	35:BN:8:ARG:NH2	2.45	0.49
22:BA:1854:A:H5''	22:BA:1855:U:OP2	2.13	0.49
22:BA:2060:A:O2'	22:BA:2061:G:OP2	2.28	0.49
22:BA:2373:G:H2'	22:BA:2374:C:C6	2.46	0.49
22:BA:2471:A:H2'	22:BA:2472:G:C5'	2.42	0.49
22:BA:2574:G:OP1	62:BA:3705:HOH:O	2.19	0.49
27:BF:3:LEU:HD11	27:BF:172:PHE:CD2	2.46	0.49
28:BG:115:GLN:H	28:BG:115:GLN:NE2	2.11	0.49
30:BI:32:VAL:HG22	30:BI:66:PHE:CG	2.47	0.49
33:BL:4:ASN:HD22	33:BL:4:ASN:N	2.06	0.49
33:BL:93:ASN:ND2	33:BL:93:ASN:C	2.67	0.49
37:BP:4:ILE:CG2	37:BP:5:LYS:H	2.12	0.49
37:BP:50:ARG:CG	37:BP:57:ALA:O	2.61	0.49
38:BQ:73:ILE:CD1	38:BQ:77:LYS:HB2	2.43	0.49
38:BQ:111:LYS:NZ	39:BR:48:LYS:HD3	2.28	0.49
39:BR:93:PHE:C	39:BR:93:PHE:CD1	2.90	0.49
43:BV:89:ILE:HG21	43:BV:91:PHE:CZ	2.48	0.49
44:BW:41:GLY:HA2	44:BW:44:PHE:CZ	2.47	0.49
53:CA:98:A:H2'	53:CA:99:C:C6	2.48	0.49
53:CA:220:G:C2	53:CA:221:C:C6	3.01	0.49
53:CA:246:A:C5	53:CA:282:A:N6	2.81	0.49
53:CA:247:G:C6	53:CA:278:G:C6	3.01	0.49
53:CA:652:U:O4	53:CA:752:G:H2'	2.12	0.49
53:CA:704:A:O2'	53:CA:705:G:H8	1.96	0.49
53:CA:756:C:C2'	53:CA:757:U:H5'	2.43	0.49
53:CA:1106:G:C2	53:CA:1107:C:C5	3.01	0.49
53:CA:1270:G:H2'	53:CA:1271:A:H8	1.78	0.49
53:CA:1288:A:C2'	53:CA:1289:A:H8	2.26	0.49
53:CA:1343:G:H4'	9:CI:123:ARG:HB3	1.94	0.49
3:CC:34:SER:O	3:CC:38:VAL:HG13	2.13	0.49
4:CD:57:LYS:HB2	4:CD:199:ILE:HB	1.95	0.49
5:CE:33:THR:OG1	5:CE:49:TYR:CZ	2.65	0.49
6:CF:97:THR:O	6:CF:98:GLU:HG3	2.13	0.49
55:CM:16:ILE:HG22	55:CM:16:ILE:O	2.12	0.49
19:CS:44:ILE:HA	19:CS:61:VAL:CG1	2.42	0.49
20:CT:54:GLN:N	20:CT:55:PRO:CD	2.75	0.49
22:DA:270:A:N1	22:DA:369:U:O2'	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:319:G:C6	22:DA:333:G:N1	2.81	0.49
22:DA:675:A:N6	22:DA:676:A:N6	2.61	0.49
22:DA:1028:A:C2	22:DA:1029:A:C6	3.01	0.49
22:DA:1063:G:C6	22:DA:1064:C:N4	2.80	0.49
22:DA:1362:C:C4	22:DA:1363:C:C5	3.01	0.49
22:DA:1527:G:H1'	22:DA:1546:G:N2	2.27	0.49
22:DA:1553:A:C8	22:DA:1555:G:C6	3.01	0.49
22:DA:1596:A:C6	22:DA:1597:A:C6	3.00	0.49
22:DA:1809:A:N3	22:DA:1810:A:C8	2.80	0.49
22:DA:1826:G:C2'	22:DA:1827:U:O5'	2.60	0.49
22:DA:1996:C:H5	32:DK:32:TYR:HH	1.60	0.49
22:DA:2015:A:C2	48:D0:2:VAL:HG11	2.47	0.49
22:DA:2024:G:H2'	22:DA:2025:C:C6	2.47	0.49
22:DA:2077:A:C5	22:DA:2435:A:C6	3.01	0.49
22:DA:2097:A:H2'	22:DA:2098:U:C6	2.48	0.49
22:DA:2297:A:HO2'	22:DA:2298:A:H8	1.60	0.49
22:DA:2412:A:H3'	22:DA:2413:G:H8	1.76	0.49
22:DA:2527:C:O2'	22:DA:2528:U:H5'	2.13	0.49
22:DA:2811:G:H2'	22:DA:2812:G:O4'	2.13	0.49
26:DE:147:LEU:O	26:DE:148:ILE:CB	2.59	0.49
26:DE:154:ASP:C	26:DE:156:ASN:H	2.20	0.49
28:DG:88:LEU:CD1	28:DG:93:TYR:HB3	2.40	0.49
35:DN:100:CYS:O	48:D0:41:HIS:CD2	2.66	0.49
37:DP:5:LYS:HG2	37:DP:9:GLN:HE21	1.78	0.49
37:DP:104:GLY:C	37:DP:106:ALA:H	2.21	0.49
40:DS:20:VAL:HG11	40:DS:43:ALA:HB3	1.95	0.49
43:DV:70:ILE:N	43:DV:70:ILE:CD1	2.70	0.49
1:AA:386:C:H2'	1:AA:387:U:C5'	2.41	0.48
1:AA:1299:A:O2'	1:AA:1300:G:H4'	2.13	0.48
1:AA:1323:G:H2'	1:AA:1324:A:H8	1.77	0.48
1:AA:1350:A:C6	1:AA:1351:U:N3	2.81	0.48
1:AA:1451:U:O5'	1:AA:1452:C:H5	1.96	0.48
2:AB:49:PHE:CB	2:AB:212:TYR:OH	2.61	0.48
2:AB:95:TRP:HH2	2:AB:100:LEU:HB2	1.77	0.48
2:AB:116:LEU:HB3	2:AB:140:LEU:HG	1.94	0.48
2:AB:185:ILE:O	2:AB:185:ILE:CG1	2.61	0.48
3:AC:4:VAL:HG22	3:AC:5:HIS:N	2.28	0.48
3:AC:149:LYS:HG3	3:AC:200:TRP:CE3	2.47	0.48
3:AC:153:SER:HB3	3:AC:164:THR:HG22	1.95	0.48
4:AD:28:ASP:C	4:AD:29:THR:O	2.54	0.48
4:AD:69:ARG:HA	4:AD:69:ARG:NE	2.20	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:88:ASN:HA	4:AD:91:ALA:HB3	1.94	0.48
5:AE:64:GLU:CD	5:AE:64:GLU:C	2.81	0.48
5:AE:109:ALA:O	5:AE:110:MET:CB	2.61	0.48
8:AH:10:LEU:HD11	8:AH:126:CYS:HB3	1.95	0.48
8:AH:94:VAL:CG1	8:AH:95:MET:N	2.76	0.48
9:AI:119:LYS:O	9:AI:120:ALA:HB3	2.12	0.48
11:AK:111:ASP:HB3	21:AU:19:LYS:HD3	1.95	0.48
22:BA:221:A:H1'	22:BA:233:A:H1'	1.95	0.48
22:BA:524:G:C2'	22:BA:525:U:H5'	2.43	0.48
22:BA:806:C:H2'	22:BA:807:U:C6	2.44	0.48
22:BA:1057:A:N3	22:BA:1082:U:C2	2.81	0.48
22:BA:1903:G:O2'	22:BA:1904:G:H5'	2.12	0.48
22:BA:2303:G:C6	22:BA:2314:A:C6	3.01	0.48
22:BA:2511:U:O5'	22:BA:2511:U:H6	1.96	0.48
22:BA:2531:A:OP1	28:BG:174:LYS:HG3	2.13	0.48
22:BA:2591:C:P	24:BC:237:ARG:HG3	2.52	0.48
22:BA:2742:G:P	52:B4:24:ARG:HH12	2.35	0.48
22:BA:2786:U:O2'	25:BD:66:GLY:HA3	2.13	0.48
22:BA:2842:G:H2'	22:BA:2843:G:H5'	1.94	0.48
24:BC:139:THR:O	24:BC:161:VAL:O	2.31	0.48
27:BF:98:PHE:CD2	27:BF:98:PHE:C	2.90	0.48
28:BG:154:GLU:OE1	28:BG:157:LYS:N	2.46	0.48
32:BK:64:ARG:HB3	32:BK:79:PHE:CG	2.48	0.48
33:BL:95:LEU:CD1	33:BL:100:ILE:HD11	2.37	0.48
35:BN:32:GLU:OE1	35:BN:118:ARG:HA	2.13	0.48
37:BP:52:ARG:H	37:BP:56:SER:HG	1.59	0.48
39:BR:42:ALA:CA	39:BR:46:GLU:HB2	2.19	0.48
39:BR:97:LYS:O	39:BR:98:ILE:HB	2.13	0.48
40:BS:15:GLN:NE2	48:B0:16:ARG:NH2	2.61	0.48
41:BT:49:LYS:HE3	41:BT:49:LYS:N	2.28	0.48
43:BV:51:GLN:HG2	43:BV:86:LEU:HD11	1.95	0.48
45:BX:32:LEU:O	45:BX:33:HIS:CG	2.65	0.48
48:B0:33:SER:O	48:B0:34:GLY:C	2.55	0.48
50:B2:42:LEU:HD22	50:B2:42:LEU:N	2.28	0.48
53:CA:399:G:C6	53:CA:400:C:C4	3.01	0.48
53:CA:411:A:N7	53:CA:413:G:C4	2.80	0.48
53:CA:917:G:C6	53:CA:918:A:C6	3.01	0.48
53:CA:1271:A:H5'	53:CA:1314:C:H5''	1.95	0.48
53:CA:1278:G:C5'	53:CA:1279:G:H5'	2.42	0.48
53:CA:1336:C:H1'	53:CA:1337:G:N1	2.28	0.48
4:CD:81:LEU:HB2	4:CD:88:ASN:ND2	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:91:ARG:CZ	54:CG:92:PRO:HD2	2.43	0.48
8:CH:34:ALA:O	8:CH:38:VAL:HG23	2.13	0.48
9:CI:44:ARG:O	9:CI:48:ARG:HG2	2.13	0.48
9:CI:87:MET:SD	9:CI:87:MET:N	2.84	0.48
15:CO:55:LEU:HA	15:CO:58:MET:HG3	1.94	0.48
56:CP:1:MET:HE2	56:CP:2:VAL:O	2.12	0.48
17:CQ:59:GLU:HG3	17:CQ:75:VAL:CG2	2.41	0.48
22:DA:27:G:H22	22:DA:512:G:H2'	1.78	0.48
22:DA:270:A:C2	22:DA:369:U:H4'	2.48	0.48
22:DA:464:U:O2'	22:DA:465:G:H5'	2.13	0.48
22:DA:477:A:H2'	22:DA:478:A:H8	1.78	0.48
22:DA:538:A:H5''	31:DJ:7:LYS:HZ3	1.78	0.48
22:DA:910:A:C4	34:DM:13:HIS:ND1	2.81	0.48
22:DA:1042:G:C5	22:DA:1043:C:C4	3.01	0.48
22:DA:1082:U:H2'	22:DA:1083:U:H5'	1.95	0.48
22:DA:1091:G:O2'	22:DA:1092:C:H5'	2.12	0.48
22:DA:1364:G:OP2	45:DX:1:SER:HA	2.13	0.48
22:DA:1387:A:C4	22:DA:1388:G:N7	2.81	0.48
22:DA:1490:A:H8	24:DC:73:ILE:CD1	2.21	0.48
22:DA:1532:A:N1	22:DA:1540:G:C6	2.81	0.48
22:DA:2230:G:C1'	45:DX:31:ASN:HB3	2.43	0.48
22:DA:2255:G:H2'	22:DA:2256:G:O4'	2.12	0.48
22:DA:2376:A:H1'	36:DO:99:TYR:OH	2.13	0.48
22:DA:2458:G:O2'	22:DA:2460:U:C4	2.65	0.48
22:DA:2873:A:C2	35:DN:5:LYS:HG3	2.48	0.48
57:DB:8:C:H5'	36:DO:27:VAL:HG11	1.95	0.48
25:DD:14:ILE:HG23	25:DD:22:ILE:HB	1.95	0.48
25:DD:27:ILE:HD12	25:DD:189:VAL:CG2	2.42	0.48
26:DE:134:LEU:CA	26:DE:137:LYS:HB2	2.43	0.48
26:DE:166:LYS:HE2	26:DE:166:LYS:CA	2.34	0.48
58:DF:87:LYS:O	58:DF:88:VAL:HB	2.13	0.48
29:DH:57:LYS:HD2	29:DH:57:LYS:C	2.38	0.48
43:DV:77:VAL:HG23	43:DV:89:ILE:HG21	1.93	0.48
44:DW:27:GLY:HA3	44:DW:31:LEU:HD11	1.81	0.48
44:DW:42:THR:O	44:DW:43:LYS:HG2	2.13	0.48
50:D2:9:VAL:HG13	50:D2:10:LEU:N	2.27	0.48
1:AA:51:A:H4'	1:AA:52:C:C5'	2.43	0.48
1:AA:71:A:H61	1:AA:99:C:H1'	1.77	0.48
1:AA:279:A:H5''	1:AA:281:G:C4'	2.43	0.48
1:AA:450:G:H2'	1:AA:451:A:OP1	2.13	0.48
1:AA:524:G:C4	1:AA:525:C:C5	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:880:C:OP1	12:AL:4:ASN:ND2	2.46	0.48
1:AA:1511:G:C4	1:AA:1512:U:C6	3.00	0.48
2:AB:22:TRP:HA	2:AB:188:THR:O	2.12	0.48
6:AF:61:LEU:HD21	18:AR:23:LYS:HZ1	1.78	0.48
6:AF:91:ARG:CG	6:AF:92:THR:H	2.23	0.48
7:AG:3:ARG:HG3	7:AG:4:ARG:N	2.26	0.48
11:AK:126:ARG:C	21:AU:33:ARG:HH12	2.21	0.48
13:AM:78:ARG:O	13:AM:82:LEU:HG	2.14	0.48
18:AR:63:TYR:CD1	18:AR:69:TYR:OH	2.66	0.48
22:BA:63:A:C2	22:BA:64:A:C5	3.01	0.48
22:BA:142:A:C2'	22:BA:143:C:C6	2.96	0.48
22:BA:434:U:C4'	22:BA:435:C:OP1	2.59	0.48
22:BA:1187:G:H5''	39:BR:83:TYR:CE2	2.48	0.48
22:BA:1289:C:H2'	22:BA:1290:C:H6	1.77	0.48
22:BA:1733:G:O2'	22:BA:1734:G:H5'	2.13	0.48
22:BA:1886:U:H2'	22:BA:1887:C:H6	1.78	0.48
22:BA:2140:G:H8	22:BA:2140:G:OP2	1.96	0.48
24:BC:94:LEU:CD1	24:BC:100:ARG:HD3	2.40	0.48
24:BC:159:THR:N	24:BC:194:VAL:CG1	2.77	0.48
26:BE:8:ALA:O	26:BE:9:GLN:C	2.56	0.48
26:BE:82:GLY:O	26:BE:83:VAL:HB	2.14	0.48
32:BK:43:ILE:HG12	32:BK:56:ASP:HB2	1.95	0.48
34:BM:134:THR:CG2	34:BM:136:MET:O	2.61	0.48
36:BO:79:ALA:HB1	36:BO:113:ALA:HB1	1.94	0.48
39:BR:34:GLU:CD	39:BR:60:LYS:HZ3	2.21	0.48
39:BR:49:ILE:CG2	39:BR:53:PHE:N	2.75	0.48
44:BW:24:ARG:NE	44:BW:65:LYS:HE2	2.27	0.48
45:BX:69:GLU:O	45:BX:71:ARG:N	2.46	0.48
46:BY:17:GLU:HG3	46:BY:18:LEU:H	1.74	0.48
53:CA:155:A:C4	53:CA:167:A:C2	3.01	0.48
53:CA:452:A:HO2'	53:CA:453:G:P	2.35	0.48
53:CA:530:G:H5''	53:CA:531:U:OP1	2.13	0.48
53:CA:552:U:C4	53:CA:553:A:N7	2.81	0.48
53:CA:1107:C:N3	53:CA:1108:G:C8	2.82	0.48
53:CA:1151:A:C4	53:CA:1152:A:N7	2.81	0.48
53:CA:1359:C:H2'	53:CA:1361:G:OP2	2.14	0.48
3:CC:149:LYS:HD2	3:CC:200:TRP:CE3	2.47	0.48
5:CE:110:MET:HE1	5:CE:124:ALA:HB1	1.94	0.48
10:CJ:51:VAL:CB	14:CN:80:ARG:HB2	2.39	0.48
11:CK:17:ASP:OD2	11:CK:80:ASN:HB2	2.12	0.48
11:CK:125:LYS:C	21:CU:33:ARG:HE	2.21	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CK:126:ARG:O	11:CK:127:ARG:HB2	2.13	0.48
22:DA:53:A:C2	50:D2:35:ARG:NH1	2.81	0.48
22:DA:349:U:H2'	22:DA:350:G:H8	1.78	0.48
22:DA:638:G:C6	22:DA:651:G:C5	3.01	0.48
22:DA:661:A:H2'	22:DA:662:G:O4'	2.13	0.48
22:DA:674:G:H5''	26:DE:71:GLY:HA3	1.95	0.48
22:DA:855:G:N2	44:DW:23:LYS:HG2	2.27	0.48
22:DA:1128:G:O6	22:DA:2491:U:C5	2.66	0.48
22:DA:1273:U:H4'	22:DA:1275:A:P	2.54	0.48
22:DA:1361:G:C4	22:DA:1362:C:C5	3.00	0.48
22:DA:1387:A:C4	22:DA:1388:G:C8	3.01	0.48
22:DA:1653:G:O6	35:DN:10:LEU:C	2.56	0.48
22:DA:2053:G:H5''	25:DD:150:GLN:H	1.76	0.48
22:DA:2363:G:O2'	22:DA:2364:C:H5'	2.13	0.48
22:DA:2473:U:H6	22:DA:2473:U:P	2.36	0.48
22:DA:2502:G:C5'	22:DA:2503:A:H5''	2.42	0.48
22:DA:2507:C:C2	22:DA:2508:G:C8	3.01	0.48
26:DE:88:ARG:HB3	26:DE:89:PRO:CD	2.42	0.48
26:DE:105:LEU:HB3	26:DE:200:LEU:HD11	1.94	0.48
29:DH:102:ALA:C	29:DH:104:THR:H	2.21	0.48
33:DL:64:PHE:HD2	51:D3:24:LYS:HG2	1.78	0.48
34:DM:133:LYS:O	34:DM:134:THR:HB	2.12	0.48
38:DQ:3:VAL:HG13	38:DQ:5:ARG:HG3	1.95	0.48
41:DT:50:LEU:HD11	46:DY:26:PHE:CE1	2.48	0.48
51:D3:28:LEU:HA	51:D3:32:LEU:HD21	1.95	0.48
1:AA:224:U:C2	1:AA:225:C:C5	3.01	0.48
1:AA:257:G:H2'	1:AA:258:G:H8	1.78	0.48
1:AA:491:G:C6	1:AA:492:C:C4	3.01	0.48
1:AA:502:A:OP1	12:AL:114:SER:CB	2.61	0.48
1:AA:600:A:H2'	1:AA:601:G:C8	2.48	0.48
1:AA:765:G:N2	1:AA:812:G:HO2'	2.11	0.48
1:AA:919:A:H8	1:AA:919:A:O5'	1.96	0.48
1:AA:1297:G:OP1	1:AA:1302:C:N4	2.46	0.48
1:AA:1336:C:HO2'	1:AA:1337:G:P	2.34	0.48
1:AA:1346:A:H61	1:AA:1374:A:H3'	1.78	0.48
1:AA:1507:A:C6	1:AA:1530:G:C6	3.01	0.48
2:AB:24:PRO:C	2:AB:26:MET:H	2.21	0.48
4:AD:63:ILE:O	4:AD:63:ILE:HG12	2.12	0.48
5:AE:120:HIS:C	5:AE:121:ASN:ND2	2.71	0.48
9:AI:49:GLN:C	9:AI:51:LEU:N	2.71	0.48
10:AJ:73:LEU:HD22	10:AJ:73:LEU:HA	1.57	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:43:LYS:HD3	12:AL:43:LYS:N	2.28	0.48
17:AQ:4:ILE:HD12	17:AQ:4:ILE:N	2.27	0.48
17:AQ:76:ARG:O	17:AQ:77:VAL:HG23	2.13	0.48
19:AS:47:THR:O	19:AS:48:ILE:C	2.56	0.48
22:BA:201:C:H2'	22:BA:202:U:C5'	2.43	0.48
22:BA:416:U:C4	22:BA:417:C:C4	3.02	0.48
22:BA:1058:U:O2'	30:BI:117:THR:HG23	2.13	0.48
22:BA:1166:G:C2'	22:BA:1167:C:H5'	2.43	0.48
22:BA:1388:G:O2'	22:BA:1389:G:H5'	2.14	0.48
22:BA:1450:G:C5	22:BA:1451:C:C4	3.01	0.48
22:BA:2083:G:H8	22:BA:2083:G:O5'	1.97	0.48
22:BA:2645:G:H3'	22:BA:2646:C:H5'	1.95	0.48
25:BD:163:GLY:O	25:BD:164:GLN:C	2.56	0.48
27:BF:3:LEU:CD1	27:BF:172:PHE:CD2	2.97	0.48
31:BJ:16:TYR:HA	31:BJ:138:GLN:O	2.14	0.48
31:BJ:44:TYR:O	31:BJ:45:THR:CG2	2.61	0.48
32:BK:112:PHE:O	32:BK:115:ILE:HG22	2.14	0.48
32:BK:118:LEU:O	32:BK:119:ALA:O	2.30	0.48
35:BN:28:LEU:O	35:BN:29:VAL:C	2.55	0.48
37:BP:13:LYS:HE3	37:BP:76:HIS:HA	1.95	0.48
53:CA:188:C:H42	53:CA:189:A:N6	2.11	0.48
53:CA:255:G:C4'	17:CQ:17:GLU:O	2.61	0.48
53:CA:264:C:H2'	53:CA:265:G:O4'	2.12	0.48
53:CA:270:A:H2'	53:CA:271:C:C6	2.49	0.48
53:CA:722:G:O3'	53:CA:723:U:C5	2.66	0.48
53:CA:758:C:H4'	53:CA:880:C:O2'	2.13	0.48
53:CA:802:A:C2'	53:CA:803:G:C5'	2.88	0.48
53:CA:923:A:H2'	53:CA:924:C:O4'	2.13	0.48
53:CA:976:G:N7	53:CA:1359:C:O4'	2.46	0.48
53:CA:1154:G:H2'	53:CA:1155:A:H8	1.77	0.48
53:CA:1284:C:OP2	53:CA:1285:A:H3'	2.13	0.48
53:CA:1294:G:H2'	53:CA:1295:U:O5'	2.12	0.48
4:CD:141:VAL:HG12	4:CD:142:VAL:N	2.27	0.48
54:CG:91:ARG:CZ	54:CG:92:PRO:HG2	2.43	0.48
8:CH:89:ASP:OD1	8:CH:89:ASP:N	2.46	0.48
8:CH:93:LYS:H	8:CH:93:LYS:CD	2.04	0.48
55:CM:94:LEU:CD2	55:CM:101:THR:HG22	2.43	0.48
14:CN:26:LEU:HD23	14:CN:26:LEU:C	2.38	0.48
14:CN:76:PHE:CD2	14:CN:92:ILE:HD13	2.48	0.48
20:CT:3:ILE:HD12	20:CT:3:ILE:H	1.78	0.48
22:DA:72:U:O2'	22:DA:73:A:H5'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:128:C:H5'	22:DA:128:C:C6	2.41	0.48
22:DA:628:G:O2'	22:DA:629:G:C8	2.66	0.48
22:DA:727:A:OP1	22:DA:1431:A:O2'	2.28	0.48
22:DA:740:C:H5'	22:DA:1784:A:C3'	2.43	0.48
22:DA:860:U:O4'	22:DA:2268:A:H5'	2.13	0.48
22:DA:1091:G:C2	22:DA:1101:U:N3	2.81	0.48
22:DA:1281:G:H2'	22:DA:1282:U:O4'	2.12	0.48
22:DA:1317:G:C6	22:DA:1318:U:C4	3.01	0.48
22:DA:1833:C:C2	22:DA:1834:U:C6	3.01	0.48
22:DA:2021:C:H4'	22:DA:2022:U:OP2	2.13	0.48
22:DA:2142:A:H2'	22:DA:2144:G:P	2.54	0.48
22:DA:2850:A:N6	22:DA:2869:G:H5'	2.28	0.48
24:DC:161:VAL:CG1	24:DC:173:LEU:HB2	2.44	0.48
25:DD:30:GLU:HG2	25:DD:185:ASN:HD22	1.73	0.48
30:DI:52:LEU:HD11	30:DI:78:LEU:HD21	1.94	0.48
33:DL:111:ILE:O	33:DL:131:ALA:HB1	2.13	0.48
34:DM:74:THR:OG1	34:DM:86:LYS:NZ	2.47	0.48
42:DU:73:ASN:C	42:DU:75:ALA:H	2.22	0.48
44:DW:37:VAL:O	44:DW:38:ARG:CB	2.60	0.48
1:AA:131:A:C2	1:AA:132:C:C4	3.02	0.48
1:AA:1015:G:H1'	1:AA:1218:C:O2'	2.14	0.48
1:AA:1143:G:O2'	1:AA:1144:G:H5'	2.13	0.48
1:AA:1158:C:O2	1:AA:1158:C:C2'	2.61	0.48
1:AA:1325:C:H2'	1:AA:1326:U:H6	1.78	0.48
5:AE:158:LYS:HE2	8:AH:63:LYS:HZ1	1.78	0.48
9:AI:98:ARG:HG2	9:AI:98:ARG:NH1	2.27	0.48
10:AJ:81:GLU:O	10:AJ:85:ASP:HB2	2.13	0.48
21:AU:8:ASN:O	21:AU:11:PHE:CE2	2.65	0.48
22:BA:276:U:H2'	22:BA:276:U:O2	2.12	0.48
22:BA:511:U:C5	22:BA:512:G:C5	3.01	0.48
22:BA:985:C:O5'	22:BA:985:C:H6	1.97	0.48
22:BA:1026:G:H2'	22:BA:1027:A:H8	1.72	0.48
22:BA:1476:U:C5	22:BA:1514:G:N2	2.81	0.48
22:BA:1911:U:C4	22:BA:1918:A:C4	3.02	0.48
22:BA:2063:C:O2	22:BA:2450:A:N1	2.47	0.48
22:BA:2149:U:O2'	22:BA:2150:C:C4'	2.61	0.48
22:BA:2459:A:N3	22:BA:2459:A:H2'	2.29	0.48
22:BA:2538:C:O2'	22:BA:2539:C:H5'	2.13	0.48
22:BA:2733:A:H2'	22:BA:2734:A:C8	2.48	0.48
23:BB:65:U:H3'	23:BB:108:A:N6	2.29	0.48
24:BC:12:ARG:HA	24:BC:15:VAL:CG2	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:52:ALA:CB	27:BF:149:ARG:HD3	2.43	0.48
29:BH:21:VAL:HG22	29:BH:22:LYS:N	2.27	0.48
29:BH:37:VAL:HG23	29:BH:38:PRO:HD2	1.96	0.48
31:BJ:98:GLU:HB3	31:BJ:124:VAL:CG2	2.40	0.48
36:BO:33:ARG:HG2	36:BO:34:HIS:CE1	2.49	0.48
37:BP:71:ARG:HB3	37:BP:73:PHE:CE2	2.49	0.48
39:BR:64:VAL:O	39:BR:64:VAL:HG12	2.12	0.48
43:BV:93:ARG:O	43:BV:94:ALA:CB	2.61	0.48
44:BW:28:GLU:O	44:BW:29:SER:C	2.56	0.48
45:BX:12:VAL:HG22	45:BX:28:PHE:HB2	1.95	0.48
53:CA:17:U:C2	53:CA:18:C:C5	3.01	0.48
53:CA:130:A:O2'	53:CA:263:A:O2'	2.18	0.48
53:CA:198:G:O6	53:CA:220:G:C5	2.67	0.48
53:CA:444:G:C4	53:CA:445:G:C8	3.01	0.48
53:CA:811:C:H4'	53:CA:900:A:N6	2.28	0.48
53:CA:903:G:C5	53:CA:904:U:C5	3.01	0.48
53:CA:1082:A:H2'	53:CA:1083:U:H5'	1.95	0.48
53:CA:1349:A:H2'	53:CA:1350:A:H8	1.75	0.48
53:CA:1452:C:H4'	53:CA:1453:G:C5'	2.40	0.48
53:CA:1504:G:H4'	53:CA:1505:G:H5'	1.92	0.48
2:CB:116:LEU:HD13	2:CB:140:LEU:HB2	1.95	0.48
3:CC:109:GLU:HG3	3:CC:139:ASN:O	2.12	0.48
3:CC:111:ASP:HB3	3:CC:114:LEU:HB2	1.95	0.48
9:CI:45:MET:HE2	9:CI:48:ARG:HG3	1.95	0.48
9:CI:51:LEU:C	9:CI:53:LEU:N	2.71	0.48
12:CL:26:CYS:CB	12:CL:29:LYS:HE2	2.43	0.48
12:CL:115:LYS:O	12:CL:116:TYR:CB	2.62	0.48
17:CQ:30:HIS:CE1	17:CQ:32:ILE:CG1	2.87	0.48
21:CU:10:PRO:O	21:CU:11:PHE:CB	2.61	0.48
22:DA:45:G:C5'	22:DA:46:G:OP1	2.61	0.48
22:DA:82:U:H2'	22:DA:83:A:O4'	2.13	0.48
22:DA:88:G:C2	22:DA:89:A:C8	3.01	0.48
22:DA:99:U:H5'	22:DA:100:U:OP1	2.14	0.48
22:DA:211:C:H2'	22:DA:212:G:O4'	2.13	0.48
22:DA:300:A:H1'	22:DA:333:G:N2	2.28	0.48
22:DA:668:A:C4	22:DA:670:A:N7	2.81	0.48
22:DA:711:G:C2	22:DA:721:A:C2	3.02	0.48
22:DA:876:C:O2	22:DA:876:C:O4'	2.30	0.48
22:DA:976:G:C2'	22:DA:977:G:H8	2.25	0.48
22:DA:1020:A:C2	22:DA:1141:U:H2'	2.48	0.48
22:DA:1026:G:O2'	22:DA:1027:A:C5'	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1139:G:H2'	22:DA:1140:C:O5'	2.14	0.48
22:DA:1274:A:O2'	22:DA:1275:A:C5'	2.61	0.48
22:DA:1545:A:H2'	22:DA:1546:G:H5'	1.94	0.48
22:DA:1585:C:H2'	22:DA:1586:A:O5'	2.14	0.48
22:DA:1606:C:H4'	22:DA:1607:C:H5'	1.94	0.48
22:DA:1700:A:H2'	22:DA:1701:A:C5'	2.43	0.48
22:DA:1914:C:H2'	22:DA:1915:U:C6	2.47	0.48
22:DA:2077:A:C2	22:DA:2244:U:O2	2.65	0.48
22:DA:2144:G:O2'	22:DA:2145:C:H5'	2.12	0.48
22:DA:2259:U:H4'	22:DA:2427:C:O2'	2.13	0.48
22:DA:2460:U:H2'	22:DA:2461:A:O4'	2.14	0.48
22:DA:2478:A:C8	22:DA:2529:G:C5	3.02	0.48
22:DA:2628:C:O2'	22:DA:2781:A:H2'	2.13	0.48
22:DA:2820:A:C6	25:DD:197:THR:HB	2.48	0.48
24:DC:115:ILE:HB	24:DC:127:ASN:OD1	2.13	0.48
24:DC:224:MET:O	24:DC:232:GLY:HA2	2.13	0.48
24:DC:230:PRO:HA	62:DC:405:HOH:O	2.13	0.48
26:DE:58:LYS:HD3	26:DE:58:LYS:N	2.28	0.48
26:DE:115:GLN:O	26:DE:117:ARG:N	2.46	0.48
31:DJ:94:ALA:O	31:DJ:95:ARG:CG	2.62	0.48
34:DM:45:GLN:OE1	34:DM:125:PRO:HG3	2.12	0.48
35:DN:20:MET:C	35:DN:22:ARG:H	2.21	0.48
35:DN:67:PHE:C	35:DN:67:PHE:CD1	2.91	0.48
39:DR:82:HIS:O	39:DR:82:HIS:CD2	2.66	0.48
41:DT:55:VAL:HG21	41:DT:85:VAL:O	2.13	0.48
42:DU:64:ILE:HG23	42:DU:64:ILE:O	2.13	0.48
45:DX:6:VAL:HG12	45:DX:50:VAL:HG12	1.94	0.48
46:DY:21:LEU:HA	46:DY:25:GLN:HB3	1.96	0.48
47:DZ:51:SER:C	47:DZ:53:MET:H	2.20	0.48
1:AA:138:G:H2'	1:AA:139:A:H5'	1.96	0.48
1:AA:464:U:C4	1:AA:466:A:H5'	2.47	0.48
1:AA:792:A:C4	1:AA:794:A:N6	2.81	0.48
1:AA:1136:C:H5''	1:AA:1137:C:P	2.54	0.48
1:AA:1152:A:H2'	1:AA:1153:G:C8	2.48	0.48
1:AA:1288:A:H1'	1:AA:1352:C:O2'	2.13	0.48
1:AA:1321:U:H5''	1:AA:1322:C:OP2	2.13	0.48
1:AA:1346:A:O4'	1:AA:1348:U:C6	2.66	0.48
3:AC:24:ASN:HD22	3:AC:25:THR:H	1.61	0.48
3:AC:36:PHE:HZ	14:AN:89:ARG:HH12	1.61	0.48
13:AM:15:VAL:HG12	13:AM:33:LEU:HD12	1.95	0.48
14:AN:2:LYS:N	62:AN:306:HOH:O	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:34:GLN:HA	15:AO:34:GLN:OE1	2.14	0.48
16:AP:57:ILE:O	16:AP:61:VAL:HG23	2.13	0.48
20:AT:57:VAL:HG12	20:AT:58:ASP:N	2.27	0.48
22:BA:184:C:O2'	22:BA:217:A:N3	2.45	0.48
22:BA:188:G:C2'	22:BA:189:G:H5'	2.43	0.48
22:BA:1056:G:H21	22:BA:1103:A:H62	1.62	0.48
22:BA:1074:G:N3	22:BA:1074:G:H2'	2.28	0.48
22:BA:1092:C:H2'	22:BA:1093:G:O4'	2.13	0.48
22:BA:1271:G:H5''	22:BA:1272:A:OP1	2.13	0.48
22:BA:1444:G:C4	22:BA:1445:G:C8	3.01	0.48
22:BA:1458:U:C4'	22:BA:1459:G:O5'	2.41	0.48
22:BA:1507:C:C5	22:BA:1508:A:H2	2.31	0.48
22:BA:1739:A:O2'	22:BA:1740:G:H5'	2.13	0.48
22:BA:2051:A:OP2	22:BA:2051:A:H8	1.96	0.48
23:BB:43:C:H2'	23:BB:44:G:H5'	1.94	0.48
23:BB:51:G:H21	23:BB:53:A:H62	1.60	0.48
24:BC:109:LEU:HD23	24:BC:110:LYS:N	2.28	0.48
25:BD:68:PHE:HB3	25:BD:73:VAL:HG12	1.95	0.48
26:BE:170:ARG:HG2	26:BE:170:ARG:HH21	1.78	0.48
29:BH:3:VAL:CA	29:BH:37:VAL:O	2.62	0.48
29:BH:9:VAL:O	29:BH:13:GLY:N	2.46	0.48
35:BN:76:VAL:O	35:BN:80:PHE:HD2	1.96	0.48
37:BP:50:ARG:HD3	37:BP:51:ASN:H	1.75	0.48
38:BQ:63:ARG:HH22	38:BQ:96:ASP:HB3	1.77	0.48
41:BT:31:VAL:C	41:BT:32:LEU:CD2	2.80	0.48
41:BT:37:ASP:O	41:BT:38:ALA:O	2.31	0.48
41:BT:40:LYS:H	41:BT:43:ILE:HG22	1.77	0.48
45:BX:12:VAL:CG2	45:BX:28:PHE:HB2	2.43	0.48
45:BX:67:LEU:O	45:BX:69:GLU:O	2.31	0.48
53:CA:321:A:O2'	53:CA:1436:U:H5'	2.12	0.48
53:CA:437:U:C2'	53:CA:438:U:O5'	2.61	0.48
53:CA:676:A:C2	53:CA:677:U:C4	3.02	0.48
53:CA:864:A:C6	53:CA:865:A:N1	2.82	0.48
53:CA:874:G:O2'	53:CA:875:U:H5'	2.12	0.48
53:CA:978:A:C4	53:CA:1319:A:N3	2.82	0.48
53:CA:1128:C:O2'	53:CA:1129:C:O4'	2.32	0.48
53:CA:1242:G:H4'	53:CA:1304:G:OP1	2.12	0.48
53:CA:1298:U:H5	54:CG:113:LYS:HA	1.76	0.48
2:CB:164:ASP:OD2	2:CB:203:ASP:HB2	2.14	0.48
3:CC:148:ILE:HD12	3:CC:200:TRP:O	2.12	0.48
5:CE:45:VAL:CG2	5:CE:46:GLY:N	2.75	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:20:GLY:O	6:CF:24:ARG:HB2	2.13	0.48
8:CH:68:LYS:HE2	8:CH:68:LYS:HA	1.95	0.48
8:CH:78:SER:CB	8:CH:124:ILE:O	2.58	0.48
10:CJ:11:LYS:HE2	10:CJ:97:ASP:OD2	2.13	0.48
11:CK:55:ARG:H	11:CK:55:ARG:CD	2.20	0.48
22:DA:112:U:H5'	46:DY:58:ASN:HD21	1.78	0.48
22:DA:142:A:HO2'	22:DA:143:C:H5'	1.78	0.48
22:DA:163:C:O2'	22:DA:164:C:O4'	2.28	0.48
22:DA:197:A:N7	22:DA:2430:A:C5	2.82	0.48
22:DA:204:A:C4	22:DA:206:U:O4	2.67	0.48
22:DA:216:A:N6	22:DA:432:A:H1'	2.28	0.48
22:DA:231:A:O2'	22:DA:232:G:O4'	2.30	0.48
22:DA:262:A:C2	22:DA:430:A:H1'	2.49	0.48
22:DA:545:U:H2'	22:DA:547:A:OP1	2.12	0.48
22:DA:558:U:P	31:DJ:113:PRO:HG2	2.53	0.48
22:DA:704:G:O2'	22:DA:705:A:H8	1.96	0.48
22:DA:728:G:C2	22:DA:730:A:C4	3.01	0.48
22:DA:863:A:C2	22:DA:864:G:C4	3.01	0.48
22:DA:866:A:O2'	22:DA:867:C:C6	2.61	0.48
22:DA:1388:G:N1	22:DA:1400:U:N3	2.61	0.48
22:DA:1408:G:H22	22:DA:1595:C:H1'	1.79	0.48
22:DA:1413:A:H2'	22:DA:1414:C:C5	2.49	0.48
22:DA:1427:A:H4'	22:DA:1428:C:O4'	2.12	0.48
22:DA:1465:G:H2'	22:DA:1466:U:O4'	2.13	0.48
22:DA:1491:G:HO2'	22:DA:1492:G:H5'	1.77	0.48
22:DA:1670:C:N4	22:DA:1674:G:O5'	2.46	0.48
22:DA:1683:U:O2'	22:DA:1684:G:H5'	2.13	0.48
22:DA:1760:C:OP1	22:DA:2712:C:H5	1.96	0.48
22:DA:2079:U:O2'	45:DX:22:ASN:ND2	2.45	0.48
22:DA:2150:C:O2'	22:DA:2151:U:C5'	2.61	0.48
22:DA:2223:G:C2'	22:DA:2224:G:H5'	2.42	0.48
22:DA:2330:G:C2'	22:DA:2331:G:H5'	2.44	0.48
22:DA:2365:G:OP1	44:DW:54:ARG:HG3	2.13	0.48
24:DC:171:VAL:HG12	24:DC:173:LEU:CD1	2.44	0.48
24:DC:184:GLU:HB2	24:DC:187:CYS:SG	2.53	0.48
24:DC:203:VAL:O	24:DC:205:GLY:N	2.46	0.48
25:DD:78:GLY:O	25:DD:79:LEU:HD13	2.14	0.48
26:DE:130:LYS:H	26:DE:160:ALA:HB2	1.78	0.48
58:DF:33:ILE:HG13	58:DF:95:MET:HE2	1.96	0.48
58:DF:43:ILE:HD13	58:DF:77:LYS:HG2	1.95	0.48
58:DF:127:TYR:O	58:DF:155:ILE:HD11	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:66:ASN:ND2	29:DH:137:GLU:HB3	2.29	0.48
30:DI:21:PRO:CD	30:DI:22:PRO:HD2	2.44	0.48
32:DK:45:GLU:OE2	32:DK:45:GLU:HA	2.14	0.48
35:DN:103:ARG:CD	35:DN:110:MET:SD	3.00	0.48
39:DR:1:MET:HG3	39:DR:101:ILE:HD12	1.96	0.48
39:DR:55:ASP:CG	39:DR:56:GLY:N	2.71	0.48
39:DR:62:GLU:CD	39:DR:97:LYS:HD2	2.39	0.48
40:DS:95:ARG:CG	40:DS:97:LEU:HD22	2.43	0.48
41:DT:14:PRO:HG2	41:DT:15:HIS:N	2.29	0.48
41:DT:19:LYS:HE2	41:DT:23:ALA:CB	2.39	0.48
46:DY:31:GLN:C	46:DY:33:ALA:N	2.68	0.48
48:D0:38:LEU:O	48:D0:41:HIS:ND1	2.46	0.48
1:AA:425:G:O2'	1:AA:426:U:H5'	2.14	0.48
1:AA:471:U:H2'	1:AA:472:U:O4'	2.14	0.48
1:AA:684:U:H3	1:AA:706:A:H61	1.60	0.48
1:AA:720:C:H5''	18:AR:40:PRO:HA	1.96	0.48
1:AA:1001:C:H2'	1:AA:1002:G:C8	2.48	0.48
1:AA:1072:G:C5	1:AA:1073:U:C4	3.02	0.48
1:AA:1306:A:H2'	1:AA:1307:U:C5'	2.43	0.48
1:AA:1451:U:O2	1:AA:1451:U:H2'	2.14	0.48
3:AC:18:ASN:O	3:AC:39:ARG:NH2	2.45	0.48
5:AE:43:GLY:O	5:AE:44:ARG:C	2.56	0.48
13:AM:68:LEU:O	13:AM:72:ILE:HG13	2.14	0.48
20:AT:27:MET:HG3	20:AT:28:ARG:N	2.27	0.48
22:BA:141:G:H5''	22:BA:142:A:C8	2.49	0.48
22:BA:141:G:H3'	22:BA:142:A:O4'	2.13	0.48
22:BA:161:A:C3'	22:BA:162:U:H5''	2.44	0.48
22:BA:1539:U:H2'	22:BA:1540:G:H8	1.79	0.48
22:BA:1839:G:C4	22:BA:1840:G:C8	3.02	0.48
22:BA:2277:G:H3'	22:BA:2278:A:H5''	1.95	0.48
22:BA:2358:A:C5	22:BA:2359:C:C5	3.02	0.48
22:BA:2742:G:H2'	22:BA:2743:U:H5'	1.95	0.48
22:BA:2862:G:H2'	22:BA:2863:C:C6	2.49	0.48
24:BC:67:LYS:HG2	24:BC:150:GLY:HA2	1.96	0.48
24:BC:93:VAL:HG12	24:BC:101:ARG:H	1.78	0.48
26:BE:83:VAL:CG1	26:BE:86:ALA:HB2	2.43	0.48
27:BF:68:LYS:N	27:BF:68:LYS:CD	2.76	0.48
28:BG:139:VAL:O	28:BG:140:ILE:C	2.56	0.48
29:BH:67:ALA:C	29:BH:69:ALA:N	2.71	0.48
30:BI:16:MET:O	30:BI:19:PRO:HD3	2.12	0.48
30:BI:61:TYR:N	30:BI:61:TYR:CD2	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BJ:54:ILE:HD11	31:BJ:56:VAL:CG2	2.43	0.48
32:BK:19:VAL:HG22	32:BK:41:ILE:HG12	1.95	0.48
33:BL:53:GLY:O	33:BL:54:GLN:C	2.57	0.48
34:BM:132:THR:CG2	34:BM:133:LYS:N	2.76	0.48
36:BO:78:VAL:HG23	36:BO:79:ALA:N	2.29	0.48
38:BQ:8:ILE:HD12	38:BQ:9:ALA:CA	2.44	0.48
38:BQ:69:ARG:NH2	38:BQ:69:ARG:CG	2.74	0.48
44:BW:40:ARG:HG3	44:BW:56:HIS:ND1	2.28	0.48
44:BW:70:VAL:C	44:BW:71:LYS:HD2	2.38	0.48
52:B4:9:LYS:H	52:B4:9:LYS:CE	2.23	0.48
53:CA:45:G:O2'	53:CA:46:G:H5'	2.13	0.48
53:CA:93:U:O5'	53:CA:93:U:H6	1.97	0.48
53:CA:322:C:O2	53:CA:332:G:N2	2.46	0.48
53:CA:369:G:N3	53:CA:370:C:C6	2.82	0.48
53:CA:604:G:H2'	53:CA:605:U:O4'	2.13	0.48
53:CA:814:A:H2'	53:CA:816:A:O5'	2.13	0.48
53:CA:1231:G:C4	53:CA:1232:U:C6	3.00	0.48
53:CA:1239:A:N6	53:CA:1299:A:N6	2.62	0.48
53:CA:1314:C:H2'	53:CA:1315:U:O4'	2.14	0.48
2:CB:80:LYS:O	2:CB:84:LEU:N	2.43	0.48
2:CB:128:LEU:HD22	2:CB:132:GLU:CG	2.44	0.48
3:CC:53:ARG:NH1	3:CC:53:ARG:HB2	2.28	0.48
4:CD:166:LYS:HA	4:CD:167:PRO:HD2	1.68	0.48
5:CE:52:ALA:HB2	5:CE:61:LYS:HE3	1.94	0.48
5:CE:151:MET:O	5:CE:154:ALA:HB3	2.12	0.48
54:CG:37:THR:HA	54:CG:40:SER:CB	2.44	0.48
12:CL:58:ASN:ND2	12:CL:60:PHE:CD1	2.82	0.48
55:CM:107:THR:HG22	55:CM:107:THR:O	2.13	0.48
19:CS:38:THR:HG1	19:CS:67:GLY:HA2	1.79	0.48
22:DA:46:G:N2	22:DA:47:C:C2	2.81	0.48
22:DA:193:U:O3'	22:DA:803:U:H4'	2.14	0.48
22:DA:298:G:H2'	22:DA:339:U:O4	2.13	0.48
22:DA:449:A:H2'	22:DA:450:G:H8	1.79	0.48
22:DA:575:A:C2	22:DA:576:U:C4	3.02	0.48
22:DA:705:A:H61	22:DA:726:G:H1'	1.79	0.48
22:DA:1323:C:N4	22:DA:1324:G:N7	2.62	0.48
22:DA:2202:U:H5''	22:DA:2203:U:OP1	2.14	0.48
22:DA:2234:G:C6	22:DA:2235:G:N7	2.81	0.48
22:DA:2645:G:C3'	22:DA:2646:C:H5''	2.43	0.48
57:DB:16:G:O6	57:DB:69:G:C6	2.66	0.48
24:DC:147:PRO:HD3	24:DC:184:GLU:CG	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:94:GLN:O	25:DD:94:GLN:CG	2.60	0.48
26:DE:58:LYS:O	26:DE:60:TRP:HD1	1.96	0.48
26:DE:105:LEU:O	26:DE:109:LEU:HB2	2.14	0.48
28:DG:90:GLY:HA2	28:DG:159:LYS:HE3	1.96	0.48
29:DH:4:ILE:HG22	29:DH:5:LEU:N	2.29	0.48
30:DI:27:LEU:CD1	30:DI:32:VAL:HG11	2.44	0.48
30:DI:74:PRO:HB2	30:DI:77:VAL:CG2	2.32	0.48
32:DK:19:VAL:HG12	32:DK:41:ILE:HG13	1.95	0.48
32:DK:76:VAL:O	37:DP:71:ARG:HG3	2.14	0.48
33:DL:6:LEU:HD23	33:DL:7:SER:N	2.28	0.48
35:DN:35:LYS:HA	35:DN:111:ALA:O	2.13	0.48
35:DN:55:ALA:O	35:DN:80:PHE:HA	2.14	0.48
37:DP:4:ILE:HG22	37:DP:4:ILE:O	2.13	0.48
40:DS:50:VAL:O	40:DS:53:SER:N	2.47	0.48
43:DV:29:ILE:HD12	43:DV:29:ILE:C	2.38	0.48
45:DX:30:PRO:HG2	45:DX:32:LEU:HD23	1.92	0.48
45:DX:52:ALA:C	45:DX:54:GLY:N	2.72	0.48
49:D1:28:THR:C	49:D1:29:LYS:HG2	2.38	0.48
1:AA:409:U:H2'	1:AA:410:G:C8	2.48	0.48
1:AA:779:C:H2'	1:AA:780:A:H5'	1.94	0.48
1:AA:872:A:C5	1:AA:874:G:C8	3.02	0.48
1:AA:1240:U:H3	7:AG:29:LEU:HD21	1.77	0.48
1:AA:1381:U:O2'	1:AA:1382:C:H5'	2.14	0.48
1:AA:1462:C:H2'	1:AA:1463:U:O4'	2.14	0.48
1:AA:1528:U:H4'	1:AA:1529:G:H5'	1.94	0.48
4:AD:34:GLU:O	4:AD:36:ALA:N	2.39	0.48
4:AD:34:GLU:C	4:AD:36:ALA:H	2.21	0.48
5:AE:121:ASN:HD21	5:AE:122:VAL:HG13	1.79	0.48
9:AI:67:LYS:HD3	9:AI:67:LYS:N	2.29	0.48
10:AJ:51:VAL:CB	14:AN:80:ARG:HB2	2.36	0.48
14:AN:15:LEU:HD23	14:AN:18:LYS:CE	2.42	0.48
15:AO:57:ARG:HH11	15:AO:57:ARG:CB	2.25	0.48
21:AU:11:PHE:O	21:AU:12:ASP:HB2	2.14	0.48
21:AU:39:LYS:N	21:AU:40:PRO:CD	2.77	0.48
22:BA:14:A:H3'	22:BA:15:G:C5'	2.44	0.48
22:BA:49:A:C2	22:BA:118:A:N1	2.82	0.48
22:BA:521:U:H2'	22:BA:522:A:C8	2.48	0.48
22:BA:548:G:H3'	22:BA:548:G:C8	2.48	0.48
22:BA:558:U:OP1	31:BJ:111:LYS:CE	2.59	0.48
22:BA:675:A:C6	22:BA:676:A:C6	3.02	0.48
22:BA:1315:C:C2	22:BA:1316:U:C5	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1341:G:OP1	22:BA:1602:U:H2'	2.13	0.48
22:BA:1487:U:C2	22:BA:1503:A:C2	3.01	0.48
22:BA:1559:U:C3'	22:BA:1560:G:H5'	2.44	0.48
22:BA:1967:C:H2'	22:BA:1968:G:H8	1.76	0.48
22:BA:2458:G:O2'	22:BA:2460:U:O4	2.31	0.48
22:BA:2530:A:N6	28:BG:155:PRO:HG3	2.29	0.48
22:BA:2646:C:OP2	22:BA:2732:G:O2'	2.31	0.48
22:BA:2865:U:C4	22:BA:2866:U:C5	3.01	0.48
24:BC:39:SER:C	24:BC:41:GLY:N	2.70	0.48
25:BD:187:LEU:HD12	25:BD:188:LEU:N	2.28	0.48
27:BF:35:LEU:HD12	27:BF:88:VAL:HB	1.95	0.48
29:BH:32:PRO:HB3	45:BX:38:TRP:CB	2.36	0.48
30:BI:12:VAL:HG23	30:BI:13:ALA:H	1.78	0.48
32:BK:63:VAL:HG21	32:BK:85:VAL:CG2	2.43	0.48
33:BL:47:ARG:HG3	33:BL:50:PHE:HB2	1.95	0.48
37:BP:92:ARG:O	37:BP:92:ARG:HG3	2.13	0.48
38:BQ:91:ARG:CD	39:BR:11:GLN:H	2.26	0.48
45:BX:7:THR:CG2	45:BX:54:GLY:HA2	2.43	0.48
45:BX:30:PRO:CB	45:BX:32:LEU:CD1	2.89	0.48
46:BY:39:GLN:HG3	46:BY:42:LEU:HD22	1.95	0.48
53:CA:102:G:H2'	53:CA:103:U:C6	2.48	0.48
53:CA:442:G:C6	53:CA:443:C:N4	2.82	0.48
53:CA:1320:C:H41	19:CS:36:ARG:HG3	1.79	0.48
2:CB:116:LEU:HD23	2:CB:119:GLN:OE1	2.14	0.48
5:CE:148:SER:O	5:CE:151:MET:N	2.30	0.48
6:CF:37:HIS:O	6:CF:38:ARG:HB3	2.13	0.48
6:CF:75:GLU:OE2	6:CF:89:VAL:HG11	2.12	0.48
8:CH:17:GLN:OE1	8:CH:62:LEU:HB3	2.12	0.48
8:CH:29:SER:O	8:CH:30:LYS:C	2.56	0.48
56:CP:54:LEU:HG	56:CP:55:ASP:H	1.78	0.48
20:CT:59:ARG:C	20:CT:61:ALA:N	2.71	0.48
22:DA:58:G:N3	22:DA:73:A:H2	2.12	0.48
22:DA:397:U:O2'	22:DA:398:C:P	2.72	0.48
22:DA:426:C:C2'	22:DA:427:U:C5'	2.91	0.48
22:DA:764:A:N3	22:DA:781:A:C6	2.82	0.48
22:DA:782:A:O2'	24:DC:223:ALA:O	2.26	0.48
22:DA:1116:G:H2'	22:DA:1117:C:C6	2.48	0.48
22:DA:1291:C:O2'	22:DA:1292:G:C5'	2.62	0.48
22:DA:1395:A:H4'	22:DA:1397:U:C4	2.49	0.48
22:DA:1567:G:H3'	24:DC:84:PRO:HG3	1.95	0.48
22:DA:1808:A:N7	45:DX:27:ARG:NH1	2.61	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1997:C:OP2	25:DD:129:THR:N	2.47	0.48
22:DA:2095:A:H5'	22:DA:2096:C:OP2	2.13	0.48
22:DA:2149:U:O2'	22:DA:2150:C:C6	2.53	0.48
22:DA:2297:A:C2	22:DA:2298:A:C8	3.02	0.48
22:DA:2345:G:C6	22:DA:2381:A:C6	3.02	0.48
22:DA:2463:C:C2	22:DA:2488:G:N2	2.82	0.48
22:DA:2614:A:C4'	22:DA:2615:U:OP1	2.60	0.48
22:DA:2725:A:C5	22:DA:2727:A:N7	2.82	0.48
57:DB:69:G:C5	57:DB:70:C:C4	3.02	0.48
24:DC:83:ASP:HB2	24:DC:90:ILE:HD12	1.95	0.48
24:DC:140:VAL:HG22	24:DC:161:VAL:HB	1.95	0.48
24:DC:211:ARG:HD3	24:DC:217:PRO:HD3	1.96	0.48
25:DD:33:ARG:NH2	25:DD:51:THR:HG22	2.27	0.48
26:DE:196:VAL:HG13	26:DE:200:LEU:CD2	2.41	0.48
58:DF:60:SER:OG	58:DF:88:VAL:HG11	2.14	0.48
28:DG:48:THR:O	28:DG:49:LEU:CB	2.56	0.48
28:DG:163:TYR:O	28:DG:164:ALA:C	2.56	0.48
30:DI:52:LEU:CD1	30:DI:53:PRO:HD2	2.41	0.48
31:DJ:77:HIS:HA	31:DJ:83:GLY:O	2.14	0.48
31:DJ:92:MET:HE1	31:DJ:99:ARG:NH2	2.28	0.48
35:DN:82:GLU:O	35:DN:86:ARG:HG3	2.14	0.48
35:DN:92:GLY:N	35:DN:94:TYR:HE1	1.92	0.48
36:DO:67:ASN:H	36:DO:70:ALA:HB3	1.77	0.48
36:DO:75:GLY:N	36:DO:106:LEU:CD1	2.77	0.48
37:DP:86:LYS:N	37:DP:86:LYS:HZ3	2.10	0.48
39:DR:41:ILE:HG22	39:DR:42:ALA:N	2.29	0.48
39:DR:49:ILE:HD13	39:DR:53:PHE:H	1.79	0.48
42:DU:39:ASN:O	42:DU:40:LEU:C	2.57	0.48
43:DV:69:GLU:OE1	43:DV:71:LYS:HG3	2.14	0.48
45:DX:65:THR:O	45:DX:68:ALA:CB	2.62	0.48
47:DZ:28:LEU:N	47:DZ:28:LEU:CD2	2.77	0.48
47:DZ:40:THR:C	47:DZ:42:ALA:N	2.70	0.48
51:D3:50:SER:O	51:D3:52:GLY:N	2.47	0.48
1:AA:32:A:C2'	1:AA:33:A:C8	2.91	0.48
1:AA:133:U:H1'	1:AA:230:G:N2	2.29	0.48
1:AA:191:G:H2'	1:AA:192:A:H8	1.79	0.48
1:AA:557:G:C6	1:AA:558:G:N1	2.81	0.48
1:AA:754:C:H3'	1:AA:755:G:H5'	1.95	0.48
1:AA:791:G:C5	1:AA:792:A:N7	2.82	0.48
1:AA:807:A:C8	1:AA:808:C:C5	3.01	0.48
1:AA:1068:G:C2	1:AA:1069:C:C6	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1095:U:OP1	1:AA:1108:G:N2	2.44	0.48
1:AA:1102:A:O2'	1:AA:1103:C:H5'	2.13	0.48
1:AA:1234:C:H2'	1:AA:1235:U:C5'	2.44	0.48
3:AC:108:PRO:C	3:AC:110:LEU:H	2.22	0.48
4:AD:104:MET:SD	4:AD:179:GLY:HA3	2.53	0.48
8:AH:78:SER:HB2	8:AH:84:ILE:HB	1.94	0.48
9:AI:46:VAL:HA	9:AI:49:GLN:HG3	1.95	0.48
22:BA:226:A:N1	22:BA:418:C:O2'	2.46	0.48
22:BA:372:G:P	45:BX:61:LYS:NZ	2.87	0.48
22:BA:638:G:C6	22:BA:651:G:C2	3.01	0.48
22:BA:733:G:C8	22:BA:761:A:N6	2.82	0.48
22:BA:995:C:OP2	38:BQ:53:LYS:CE	2.62	0.48
22:BA:995:C:OP2	38:BQ:52:ARG:NH1	2.47	0.48
22:BA:1008:A:H4'	22:BA:1009:A:OP1	2.14	0.48
22:BA:1072:C:H6	22:BA:1072:C:H2'	1.31	0.48
22:BA:1113:U:C2	22:BA:1114:C:C5	3.02	0.48
22:BA:1673:G:H2'	22:BA:1674:G:H5'	1.96	0.48
22:BA:1733:G:O2'	22:BA:1734:G:O5'	2.31	0.48
22:BA:1842:G:H4'	24:BC:242:HIS:CE1	2.49	0.48
22:BA:2027:G:H2'	22:BA:2028:U:H6	1.79	0.48
22:BA:2366:A:C2	22:BA:2367:G:H1'	2.48	0.48
22:BA:2492:U:H2'	22:BA:2493:U:C6	2.48	0.48
22:BA:2795:C:O2'	22:BA:2796:U:H5'	2.14	0.48
22:BA:2887:A:C5	22:BA:2888:C:C5	3.02	0.48
24:BC:245:THR:HG1	24:BC:249:VAL:HB	1.77	0.48
24:BC:257:ARG:NH1	24:BC:263:ASP:OD2	2.46	0.48
25:BD:118:PHE:O	25:BD:119:ALA:HB3	2.12	0.48
26:BE:4:VAL:O	26:BE:6:LYS:N	2.47	0.48
28:BG:10:VAL:O	28:BG:10:VAL:CG2	2.58	0.48
30:BI:85:ILE:HD13	30:BI:88:GLY:HA2	1.96	0.48
34:BM:53:MET:HB2	34:BM:53:MET:HE3	1.62	0.48
35:BN:73:ASN:HA	35:BN:76:VAL:CG1	2.43	0.48
37:BP:80:VAL:HG12	37:BP:81:ASP:H	1.75	0.48
41:BT:1:MET:CB	41:BT:2:ILE:HD13	2.43	0.48
45:BX:18:SER:OG	45:BX:22:ASN:HB2	2.14	0.48
48:B0:50:GLY:O	48:B0:51:ARG:O	2.32	0.48
53:CA:296:U:C2	53:CA:297:G:C8	3.01	0.48
53:CA:690:G:H2'	53:CA:691:G:O4'	2.12	0.48
53:CA:1253:G:H1	53:CA:1285:A:N6	2.11	0.48
2:CB:95:TRP:HZ2	2:CB:100:LEU:CD1	2.24	0.48
4:CD:2:ARG:CZ	4:CD:114:ARG:CD	2.92	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:104:ILE:H	5:CE:122:VAL:N	1.98	0.48
5:CE:131:ASN:HD22	5:CE:131:ASN:C	2.20	0.48
54:CG:116:ALA:CA	54:CG:120:ALA:HB3	2.44	0.48
8:CH:1:SER:O	8:CH:3:GLN:N	2.47	0.48
8:CH:11:THR:HG23	8:CH:14:ARG:HH22	1.79	0.48
8:CH:103:VAL:HG11	8:CH:124:ILE:HD13	1.96	0.48
9:CI:20:ILE:HD11	9:CI:61:ASP:O	2.13	0.48
11:CK:75:GLU:OE2	11:CK:75:GLU:HA	2.14	0.48
55:CM:61:LYS:O	55:CM:62:PHE:HB2	2.12	0.48
55:CM:113:LYS:HD3	55:CM:113:LYS:C	2.39	0.48
56:CP:6:LEU:HD13	56:CP:17:TYR:CG	2.49	0.48
19:CS:5:LYS:HE3	19:CS:6:LYS:H	1.78	0.48
20:CT:60:GLN:CD	20:CT:65:LEU:HD12	2.38	0.48
22:DA:192:C:O4'	22:DA:678:C:O2	2.32	0.48
22:DA:295:G:C2	22:DA:296:U:C5	3.02	0.48
22:DA:301:G:O5'	42:DU:81:ARG:NH1	2.47	0.48
22:DA:424:G:C2	22:DA:425:G:C8	3.01	0.48
22:DA:587:C:N3	33:DL:33:ARG:NH2	2.61	0.48
22:DA:616:A:O2'	22:DA:617:G:O5'	2.32	0.48
22:DA:729:G:C6	24:DC:206:LYS:HB2	2.49	0.48
22:DA:1059:G:H1	22:DA:1088:A:H2	1.61	0.48
22:DA:1130:U:N3	22:DA:2025:C:OP1	2.44	0.48
22:DA:1273:U:O3'	22:DA:1274:A:H3'	2.12	0.48
22:DA:1361:G:C4	22:DA:1362:C:C6	3.02	0.48
22:DA:1400:U:O2'	22:DA:1401:G:O4'	2.19	0.48
22:DA:1416:G:C2	22:DA:1417:C:C5	3.02	0.48
22:DA:1677:A:N6	22:DA:1678:A:C6	2.82	0.48
22:DA:1835:G:H2'	22:DA:1836:C:H6	1.79	0.48
22:DA:1854:A:H2	22:DA:2087:G:N3	2.12	0.48
22:DA:2461:A:C1'	22:DA:2492:U:H3	2.18	0.48
22:DA:2508:G:N2	22:DA:2582:G:C6	2.82	0.48
22:DA:2516:A:C2	22:DA:2569:G:N3	2.82	0.48
22:DA:2571:U:N3	22:DA:2574:G:C8	2.82	0.48
22:DA:2714:G:H8	22:DA:2714:G:O5'	1.96	0.48
57:DB:40:U:O2	57:DB:43:C:C2'	2.55	0.48
24:DC:29:PHE:C	24:DC:31:PRO:HD2	2.39	0.48
26:DE:146:VAL:HG12	26:DE:167:VAL:HG23	1.96	0.48
58:DF:102:LEU:N	58:DF:102:LEU:HD22	2.28	0.48
29:DH:65:ALA:O	29:DH:66:ASN:C	2.57	0.48
30:DI:27:LEU:HD12	30:DI:27:LEU:C	2.38	0.48
31:DJ:110:PRO:HG2	31:DJ:111:LYS:CG	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DL:79:LEU:HD23	33:DL:82:LEU:HD13	1.96	0.48
34:DM:13:HIS:O	34:DM:14:LYS:HB2	2.14	0.48
35:DN:73:ASN:HA	35:DN:76:VAL:HG13	1.96	0.48
36:DO:49:VAL:HG11	36:DO:81:ARG:HB3	1.95	0.48
37:DP:64:SER:O	37:DP:66:GLY:N	2.46	0.48
41:DT:44:LYS:C	41:DT:48:GLN:HG2	2.39	0.48
42:DU:94:PHE:O	42:DU:94:PHE:CD2	2.64	0.48
43:DV:32:GLY:O	43:DV:33:GLY:C	2.56	0.48
1:AA:8:A:N6	4:AD:204:SER:HB2	2.14	0.48
1:AA:57:G:C6	1:AA:58:C:C4	3.02	0.48
1:AA:102:G:C4	1:AA:103:U:C5	3.02	0.48
1:AA:199:A:N3	1:AA:200:G:C8	2.82	0.48
1:AA:303:A:H2'	1:AA:304:U:O4'	2.14	0.48
1:AA:342:C:C2'	1:AA:343:U:H5'	2.43	0.48
1:AA:563:A:N3	1:AA:563:A:C2'	2.72	0.48
2:AB:164:ASP:O	2:AB:168:GLU:HG2	2.13	0.48
3:AC:148:ILE:HG13	3:AC:200:TRP:O	2.14	0.48
4:AD:123:MET:CB	4:AD:128:VAL:HA	2.44	0.48
8:AH:17:GLN:HE21	8:AH:71:VAL:CG2	2.27	0.48
11:AK:126:ARG:N	21:AU:33:ARG:HH22	2.11	0.48
13:AM:86:ARG:O	13:AM:89:ARG:HB2	2.14	0.48
17:AQ:12:VAL:CG1	17:AQ:13:SER:N	2.76	0.48
19:AS:44:ILE:HA	19:AS:61:VAL:HB	1.96	0.48
20:AT:6:ALA:HB1	20:AT:9:ARG:HB2	1.96	0.48
21:AU:36:PHE:HB3	21:AU:40:PRO:HD3	1.96	0.48
22:BA:269:C:O2'	22:BA:270:A:H5'	2.14	0.48
22:BA:616:A:H2'	22:BA:617:G:H8	1.77	0.48
22:BA:1046:A:H3'	22:BA:1047:G:C5'	2.42	0.48
22:BA:1062:G:C6	22:BA:1063:G:C6	3.02	0.48
22:BA:1427:A:H4'	22:BA:1428:C:O5'	2.14	0.48
22:BA:1613:G:O2'	50:B2:3:ARG:HG3	2.14	0.48
22:BA:1615:C:C5	22:BA:1617:C:C4	3.01	0.48
22:BA:1759:A:H2'	22:BA:1760:C:C6	2.49	0.48
23:BB:53:A:C2	23:BB:54:G:C8	3.02	0.48
26:BE:112:LEU:HD13	26:BE:186:VAL:CG1	2.36	0.48
29:BH:110:VAL:HG23	29:BH:111:ALA:N	2.29	0.48
30:BI:19:PRO:HG2	30:BI:23:VAL:HG22	1.96	0.48
37:BP:25:VAL:O	37:BP:25:VAL:HG22	2.10	0.48
40:BS:17:VAL:HG12	40:BS:18:ARG:N	2.28	0.48
41:BT:11:LEU:HG	41:BT:46:ALA:HB1	1.95	0.48
44:BW:67:LYS:HB3	44:BW:80:SER:N	2.25	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:BY:18:LEU:HD13	46:BY:18:LEU:C	2.39	0.48
47:BZ:8:GLN:HG3	47:BZ:28:LEU:HB3	1.96	0.48
53:CA:80:A:H3'	53:CA:81:A:C4'	2.43	0.48
53:CA:203:G:N2	53:CA:215:C:C2	2.81	0.48
53:CA:322:C:C2	53:CA:332:G:N2	2.82	0.48
53:CA:636:U:H2'	53:CA:637:C:C6	2.49	0.48
53:CA:1288:A:H2'	53:CA:1289:A:H8	1.77	0.48
53:CA:1480:A:H2'	53:CA:1481:U:H6	1.78	0.48
4:CD:53:GLN:HB2	4:CD:202:LEU:HD12	1.96	0.48
9:CI:35:GLU:CB	9:CI:39:GLY:HA3	2.44	0.48
10:CJ:57:VAL:HG13	10:CJ:58:ASN:N	2.27	0.48
11:CK:51:PHE:CE2	11:CK:64:VAL:HG21	2.49	0.48
55:CM:22:TYR:HB2	55:CM:65:GLU:HG2	1.96	0.48
15:CO:38:LEU:HG	15:CO:42:PHE:HE1	1.78	0.48
56:CP:71:VAL:HG22	56:CP:72:ALA:N	2.29	0.48
22:DA:487:C:C2'	22:DA:488:G:H5'	2.44	0.48
22:DA:669:G:N2	22:DA:670:A:C2	2.80	0.48
22:DA:1039:A:C6	22:DA:1040:A:N7	2.81	0.48
22:DA:1268:A:C6	22:DA:2013:A:C8	3.01	0.48
22:DA:1419:A:H1'	22:DA:1579:A:H61	1.79	0.48
22:DA:1537:G:C3'	22:DA:1538:G:H4'	2.41	0.48
22:DA:1801:A:C5	22:DA:2203:U:C5	3.02	0.48
22:DA:2283:C:H5''	22:DA:2283:C:C6	2.47	0.48
22:DA:2432:A:N1	45:DX:20:ALA:HA	2.29	0.48
22:DA:2572:A:C8	25:DD:149:ASN:ND2	2.65	0.48
22:DA:2611:C:H2'	22:DA:2612:C:H6	1.79	0.48
22:DA:2807:U:H2'	22:DA:2808:G:O4'	2.14	0.48
22:DA:2829:A:H2'	22:DA:2830:C:C5'	2.42	0.48
24:DC:19:VAL:O	24:DC:19:VAL:CG1	2.61	0.48
24:DC:78:GLU:HB2	24:DC:92:LEU:HB3	1.96	0.48
25:DD:90:PHE:C	25:DD:92:VAL:H	2.22	0.48
26:DE:44:ARG:HB2	26:DE:88:ARG:O	2.13	0.48
26:DE:138:LEU:HD23	26:DE:141:MET:HE1	1.96	0.48
28:DG:84:LYS:HB2	28:DG:132:LEU:H	1.79	0.48
29:DH:31:VAL:CB	29:DH:32:PRO:HD3	2.35	0.48
32:DK:77:ILE:HG23	37:DP:71:ARG:HD2	1.95	0.48
33:DL:68:SER:O	33:DL:69:ARG:HB2	2.13	0.48
38:DQ:26:ALA:HA	38:DQ:29:ARG:CG	2.44	0.48
38:DQ:39:ILE:O	38:DQ:42:GLY:N	2.47	0.48
38:DQ:75:TYR:O	38:DQ:79:ILE:HG22	2.14	0.48
39:DR:97:LYS:O	39:DR:97:LYS:CG	2.62	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:81:ARG:H	42:DU:81:ARG:CD	2.25	0.48
44:DW:57:THR:O	44:DW:57:THR:HG22	2.13	0.48
48:D0:53:VAL:HG23	48:D0:54:ILE:N	2.28	0.48
1:AA:538:G:OP1	12:AL:109:ARG:HD3	2.14	0.48
1:AA:579:A:H2'	1:AA:580:C:C6	2.48	0.48
1:AA:657:U:O2'	1:AA:658:C:H5'	2.13	0.48
1:AA:674:G:OP1	6:AF:51:ILE:HG13	2.14	0.48
1:AA:707:U:H2'	1:AA:708:C:C6	2.49	0.48
1:AA:821:G:H2'	1:AA:822:U:C6	2.48	0.48
1:AA:908:A:C2	1:AA:909:A:C4	3.01	0.48
1:AA:1349:A:OP1	9:AI:122:ARG:N	2.46	0.48
1:AA:1410:A:C2'	1:AA:1411:C:O5'	2.62	0.48
2:AB:40:ILE:HG21	2:AB:201:GLY:H	1.78	0.48
3:AC:55:VAL:HG12	3:AC:56:ILE:N	2.29	0.48
3:AC:63:ILE:HG22	3:AC:97:PRO:O	2.14	0.48
6:AF:42:TRP:HZ2	6:AF:61:LEU:CD2	2.23	0.48
7:AG:106:ALA:HB1	7:AG:132:THR:HB	1.96	0.48
8:AH:4:ASP:C	8:AH:4:ASP:OD2	2.57	0.48
10:AJ:63:ASP:OD2	14:AN:97:LYS:NZ	2.46	0.48
17:AQ:48:GLU:O	17:AQ:49:ASN:C	2.56	0.48
22:BA:60:G:C6	22:BA:74:A:N6	2.82	0.48
22:BA:80:G:C4	22:BA:107:G:N2	2.82	0.48
22:BA:306:U:H2'	22:BA:307:G:O4'	2.14	0.48
22:BA:1028:A:OP2	22:BA:1126:A:N6	2.42	0.48
22:BA:1159:U:O2'	22:BA:1160:G:H5'	2.14	0.48
22:BA:1513:U:C2'	22:BA:1514:G:H5'	2.44	0.48
22:BA:1535:A:O2'	22:BA:1536:C:OP1	2.32	0.48
22:BA:1952:A:C6	22:BA:1953:A:N1	2.81	0.48
22:BA:2446:G:H3'	22:BA:2447:G:H5''	1.94	0.48
22:BA:2583:G:C6	22:BA:2584:U:N3	2.82	0.48
22:BA:2783:U:H2'	22:BA:2784:U:C6	2.48	0.48
23:BB:42:C:O2'	23:BB:43:C:H5'	2.14	0.48
24:BC:184:GLU:O	24:BC:185:ALA:HB3	2.14	0.48
24:BC:257:ARG:HG3	24:BC:269:ARG:HH22	1.78	0.48
25:BD:90:PHE:C	25:BD:92:VAL:N	2.71	0.48
25:BD:158:GLY:O	25:BD:159:LYS:C	2.57	0.48
26:BE:157:LEU:O	26:BE:157:LEU:HG	2.13	0.48
27:BF:118:ALA:HB1	27:BF:166:ARG:HD3	1.96	0.48
31:BJ:114:LEU:HD23	31:BJ:114:LEU:O	2.13	0.48
36:BO:17:LYS:HE3	36:BO:17:LYS:HA	1.95	0.48
37:BP:64:SER:HB3	37:BP:69:VAL:CG1	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:BP:96:LEU:HB3	37:BP:99:LEU:HD22	1.95	0.48
41:BT:20:ALA:O	41:BT:21:SER:C	2.57	0.48
41:BT:39:THR:O	41:BT:41:ALA:N	2.44	0.48
43:BV:2:PHE:HD1	43:BV:50:MET:CE	2.18	0.48
45:BX:19:HIS:C	45:BX:21:LEU:H	2.22	0.48
53:CA:71:A:C6	53:CA:100:G:C5	3.02	0.48
53:CA:72:A:H2'	53:CA:73:C:C6	2.49	0.48
53:CA:345:C:H3'	37:DP:38:ARG:NH1	2.28	0.48
53:CA:595:A:H5''	53:CA:596:A:OP1	2.14	0.48
53:CA:949:A:C4'	53:CA:1364:U:O4	2.62	0.48
53:CA:949:A:C2	53:CA:1233:G:C4	3.02	0.48
53:CA:953:G:C6	53:CA:954:G:C6	3.02	0.48
53:CA:1272:G:C2'	53:CA:1273:C:H5'	2.44	0.48
53:CA:1349:A:OP1	9:CI:121:ARG:HB2	2.14	0.48
53:CA:1367:C:O2'	53:CA:1368:A:O5'	2.31	0.48
3:CC:120:THR:CG2	3:CC:187:GLU:O	2.58	0.48
54:CG:84:TYR:HD2	54:CG:150:PHE:HD2	1.60	0.48
54:CG:91:ARG:CD	54:CG:92:PRO:HD2	2.42	0.48
12:CL:31:GLY:HA3	12:CL:54:VAL:CG1	2.44	0.48
55:CM:28:ARG:HA	55:CM:31:ALA:HB3	1.95	0.48
21:CU:35:GLU:OE2	21:CU:35:GLU:HA	2.14	0.48
22:DA:46:G:N1	22:DA:47:C:C4	2.82	0.48
22:DA:133:U:H2'	22:DA:134:G:O4'	2.14	0.48
22:DA:181:A:H2	22:DA:434:U:C1'	2.18	0.48
22:DA:224:U:OP2	22:DA:408:G:N2	2.44	0.48
22:DA:657:U:H2'	22:DA:658:U:C6	2.49	0.48
22:DA:792:A:C5'	22:DA:793:A:H5'	2.42	0.48
22:DA:822:G:H2'	22:DA:823:C:H6	1.79	0.48
22:DA:1049:C:HO2'	22:DA:1050:A:H5'	1.79	0.48
22:DA:1252:G:N3	22:DA:1253:A:C2	2.82	0.48
22:DA:1341:G:C2	41:DT:84:TYR:HE2	2.32	0.48
22:DA:1527:G:C2	22:DA:1546:G:N1	2.81	0.48
22:DA:1537:G:H3'	22:DA:1537:G:OP2	2.14	0.48
22:DA:1649:G:C2'	22:DA:1650:A:H8	2.27	0.48
22:DA:1674:G:N2	22:DA:1677:A:N1	2.62	0.48
22:DA:1808:A:C3'	22:DA:1809:A:C8	2.97	0.48
22:DA:1819:A:C1'	22:DA:1821:A:C6	2.97	0.48
22:DA:1875:G:H8	22:DA:1875:G:OP2	1.97	0.48
22:DA:2185:U:H6	22:DA:2185:U:O5'	1.97	0.48
22:DA:2387:U:O2	44:DW:38:ARG:CZ	2.61	0.48
22:DA:2644:G:C6	22:DA:2645:G:C2	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2751:G:N3	22:DA:2751:G:H2'	2.29	0.48
22:DA:2850:A:C2'	22:DA:2851:A:H5'	2.42	0.48
25:DD:106:LYS:CB	25:DD:206:ALA:H	2.26	0.48
25:DD:181:ASP:C	25:DD:183:GLU:N	2.70	0.48
26:DE:187:VAL:HG12	26:DE:188:MET:N	2.29	0.48
58:DF:56:LEU:HD13	58:DF:56:LEU:C	2.38	0.48
58:DF:169:LEU:HB3	58:DF:174:PHE:HB2	1.96	0.48
28:DG:157:LYS:C	28:DG:159:LYS:H	2.20	0.48
32:DK:118:LEU:HD23	32:DK:118:LEU:N	2.29	0.48
33:DL:57:LEU:HA	33:DL:60:ARG:CG	2.43	0.48
33:DL:142:ILE:CG2	33:DL:144:GLU:H	2.27	0.48
37:DP:28:LYS:O	37:DP:80:VAL:O	2.32	0.48
38:DQ:87:VAL:CG1	38:DQ:88:GLU:H	2.11	0.48
39:DR:43:ASN:HD22	39:DR:44:GLY:H	1.61	0.48
44:DW:35:ILE:HB	44:DW:36:ILE:H	1.45	0.48
47:DZ:32:GLY:C	47:DZ:34:THR:N	2.71	0.48
49:D1:46:VAL:HG22	49:D1:47:ILE:N	2.29	0.48
1:AA:94:G:C4'	1:AA:95:C:O5'	2.47	0.47
1:AA:633:G:C5	1:AA:634:C:C5	3.02	0.47
1:AA:993:G:H2'	1:AA:993:G:N3	2.29	0.47
1:AA:1029:U:N3	1:AA:1033:G:C6	2.82	0.47
1:AA:1216:A:OP1	14:AN:4:SER:CB	2.62	0.47
1:AA:1466:C:H2'	1:AA:1467:C:O4'	2.15	0.47
4:AD:129:VAL:O	4:AD:129:VAL:HG12	2.14	0.47
8:AH:9:MET:O	8:AH:10:LEU:C	2.56	0.47
8:AH:63:LYS:HB2	8:AH:70:VAL:CG2	2.38	0.47
19:AS:33:TRP:CD1	19:AS:51:HIS:CB	2.97	0.47
22:BA:81:G:C2	22:BA:106:C:C2	3.02	0.47
22:BA:404:A:C8	22:BA:406:G:C6	3.02	0.47
22:BA:435:C:O2'	22:BA:436:C:H5'	2.14	0.47
22:BA:666:A:O2'	22:BA:667:U:H5'	2.14	0.47
22:BA:743:A:O3'	62:BA:3646:HOH:O	2.20	0.47
22:BA:796:C:H2'	22:BA:797:G:H8	1.78	0.47
22:BA:945:A:C4	22:BA:2448:A:C2	3.02	0.47
22:BA:966:G:C6	22:BA:967:U:C4	3.02	0.47
22:BA:1243:C:C2	22:BA:1244:A:C8	3.02	0.47
22:BA:1303:G:H2'	22:BA:1304:A:C8	2.46	0.47
22:BA:1333:G:OP2	62:BA:3389:HOH:O	2.20	0.47
22:BA:1569:A:C2	22:BA:1570:A:C4	3.01	0.47
22:BA:1576:U:H2'	22:BA:1577:C:H5'	1.94	0.47
22:BA:1644:C:C2'	22:BA:1645:G:C5'	2.88	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1818:U:O2'	22:BA:1819:A:OP2	2.31	0.47
22:BA:1958:C:P	62:BA:3724:HOH:O	2.72	0.47
22:BA:2019:A:C2'	22:BA:2020:A:O5'	2.62	0.47
22:BA:2203:U:C5'	22:BA:2204:G:OP1	2.49	0.47
22:BA:2319:G:O2'	22:BA:2320:U:C5	2.56	0.47
22:BA:2555:U:H5	22:BA:2556:C:C6	2.27	0.47
23:BB:12:C:C4'	23:BB:13:G:OP1	2.62	0.47
25:BD:103:ASP:OD1	25:BD:103:ASP:C	2.57	0.47
26:BE:5:LEU:HD22	26:BE:122:GLU:HG2	1.95	0.47
27:BF:46:LYS:N	27:BF:46:LYS:CD	2.76	0.47
27:BF:134:GLN:C	27:BF:136:ILE:N	2.72	0.47
28:BG:86:LEU:CB	28:BG:162:ARG:O	2.53	0.47
29:BH:81:ALA:HB2	29:BH:145:ASN:O	2.15	0.47
31:BJ:38:GLY:O	31:BJ:40:HIS:N	2.47	0.47
37:BP:21:PRO:CA	37:BP:46:VAL:HG12	2.31	0.47
37:BP:71:ARG:HD3	37:BP:73:PHE:CZ	2.49	0.47
38:BQ:60:TRP:O	38:BQ:61:ILE:C	2.57	0.47
39:BR:70:GLU:O	39:BR:71:LYS:C	2.57	0.47
40:BS:32:ALA:HB3	40:BS:51:LEU:HD21	1.97	0.47
44:BW:29:SER:HA	44:BW:63:ASP:HB3	1.96	0.47
49:B1:3:GLY:C	49:B1:5:ARG:H	2.20	0.47
53:CA:112:G:C2	53:CA:330:C:N4	2.82	0.47
53:CA:364:A:C2	53:CA:365:U:O4	2.67	0.47
53:CA:451:A:H1'	53:CA:452:A:C8	2.49	0.47
53:CA:615:G:C2	53:CA:616:G:C4	3.02	0.47
53:CA:694:A:H3'	53:CA:695:A:C5'	2.33	0.47
53:CA:961:U:O4	53:CA:983:A:C6	2.67	0.47
53:CA:1102:A:H8	53:CA:1102:A:H5''	1.79	0.47
53:CA:1297:G:O2'	54:CG:113:LYS:HE3	2.13	0.47
53:CA:1320:C:O2'	19:CS:72:GLU:HA	2.14	0.47
2:CB:49:PHE:HB3	2:CB:199:ILE:CG2	2.44	0.47
2:CB:101:THR:HG23	2:CB:174:GLU:HB3	1.96	0.47
2:CB:115:ASP:O	2:CB:119:GLN:CB	2.62	0.47
3:CC:76:ILE:HD11	3:CC:102:ILE:CD1	2.36	0.47
3:CC:96:VAL:HB	3:CC:97:PRO:CD	2.45	0.47
4:CD:187:ARG:CZ	4:CD:191:SER:OG	2.62	0.47
5:CE:110:MET:HG2	5:CE:139:THR:CG2	2.43	0.47
6:CF:11:HIS:NE2	6:CF:54:LEU:CD2	2.76	0.47
56:CP:36:VAL:HG22	56:CP:36:VAL:O	2.14	0.47
22:DA:77:G:O2'	22:DA:78:U:C5'	2.62	0.47
22:DA:197:A:N7	22:DA:2430:A:C4	2.82	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:836:G:C6	22:DA:837:C:C4	3.01	0.47
22:DA:953:G:O2'	22:DA:954:G:H5'	2.14	0.47
22:DA:976:G:O2'	22:DA:977:G:H8	1.97	0.47
22:DA:1304:A:O2'	22:DA:1305:C:C6	2.58	0.47
22:DA:1364:G:N3	22:DA:1368:G:C2	2.82	0.47
22:DA:1717:A:O2'	22:DA:1718:G:O4'	2.32	0.47
22:DA:1803:A:C2	22:DA:1823:G:H1'	2.49	0.47
22:DA:2015:A:C6	48:D0:2:VAL:HG11	2.49	0.47
22:DA:2039:U:H2'	22:DA:2040:G:C8	2.48	0.47
22:DA:2077:A:C6	22:DA:2435:A:C6	3.02	0.47
22:DA:2145:C:H2'	22:DA:2146:C:H3'	1.96	0.47
22:DA:2250:G:H5'	34:DM:84:LYS:NZ	2.29	0.47
22:DA:2287:A:N7	22:DA:2289:G:C8	2.82	0.47
22:DA:2308:G:O6	22:DA:2311:A:N7	2.47	0.47
22:DA:2459:A:H2'	22:DA:2460:U:H6	1.78	0.47
22:DA:2636:C:H4'	25:DD:81:GLU:CD	2.39	0.47
57:DB:18:G:C6	57:DB:19:C:N3	2.82	0.47
57:DB:55:U:H5'	58:DF:24:VAL:CG2	2.44	0.47
57:DB:77:U:H2'	57:DB:78:A:H5'	1.95	0.47
24:DC:20:ASN:CB	24:DC:23:LEU:HD22	2.44	0.47
58:DF:135:ILE:O	58:DF:137:PHE:N	2.41	0.47
58:DF:139:GLU:HB3	58:DF:142:TYR:HB3	1.96	0.47
31:DJ:43:GLU:C	31:DJ:45:THR:HG22	2.39	0.47
31:DJ:49:ASP:HB2	31:DJ:121:LYS:HZ2	1.79	0.47
34:DM:32:GLY:HA2	34:DM:104:GLU:HA	1.96	0.47
35:DN:103:ARG:HG3	35:DN:104:ALA:H	1.79	0.47
35:DN:110:MET:HE2	35:DN:110:MET:HA	1.96	0.47
38:DQ:96:ASP:C	38:DQ:96:ASP:OD1	2.56	0.47
39:DR:97:LYS:O	39:DR:98:ILE:C	2.56	0.47
41:DT:62:VAL:CG1	41:DT:63:VAL:N	2.76	0.47
43:DV:36:ALA:HB1	43:DV:37:PRO:HD2	1.96	0.47
44:DW:20:LEU:CD1	44:DW:35:ILE:HG13	2.41	0.47
45:DX:13:THR:HA	45:DX:27:ARG:HA	1.95	0.47
45:DX:30:PRO:HB2	45:DX:32:LEU:HD21	1.95	0.47
47:DZ:4:ILE:CG2	47:DZ:56:VAL:HG13	2.43	0.47
1:AA:503:C:O2'	1:AA:504:C:H5'	2.14	0.47
1:AA:692:U:H1'	1:AA:695:A:N7	2.29	0.47
1:AA:820:U:H4'	1:AA:821:G:OP2	2.14	0.47
1:AA:924:C:H2'	1:AA:925:G:C8	2.49	0.47
1:AA:959:A:H5''	1:AA:960:U:OP2	2.13	0.47
1:AA:1055:A:C2	1:AA:1056:U:H1'	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1210:C:H2'	1:AA:1211:U:C5'	2.44	0.47
1:AA:1227:A:O2'	1:AA:1228:C:O5'	2.31	0.47
1:AA:1452:C:O4'	1:AA:1453:G:C2	2.66	0.47
2:AB:205:ALA:O	2:AB:209:VAL:HG22	2.14	0.47
5:AE:112:ALA:O	5:AE:116:VAL:HG13	2.15	0.47
7:AG:110:ARG:HD3	7:AG:112:ASP:OD1	2.14	0.47
8:AH:66:GLN:C	8:AH:68:LYS:H	2.21	0.47
9:AI:57:VAL:O	9:AI:58:GLU:HG2	2.14	0.47
12:AL:89:LEU:N	12:AL:89:LEU:HD22	2.29	0.47
17:AQ:78:VAL:O	17:AQ:79:GLU:HB2	2.14	0.47
19:AS:51:HIS:CD2	19:AS:53:GLY:N	2.79	0.47
19:AS:78:THR:O	19:AS:78:THR:OG1	2.31	0.47
20:AT:84:LYS:O	20:AT:84:LYS:HD2	2.15	0.47
22:BA:422:A:H2'	22:BA:423:A:C8	2.49	0.47
22:BA:511:U:H5	22:BA:512:G:C5	2.31	0.47
22:BA:858:G:N3	22:BA:2268:A:H2'	2.29	0.47
22:BA:946:C:H2'	22:BA:947:A:C8	2.49	0.47
22:BA:1788:C:C2'	22:BA:1789:A:H5'	2.44	0.47
22:BA:1791:A:O2'	24:BC:205:GLY:CA	2.59	0.47
22:BA:1820:U:H3'	22:BA:1821:A:H5'	1.96	0.47
22:BA:2267:A:H5''	22:BA:2268:A:H5'	1.96	0.47
22:BA:2500:U:O2	22:BA:2504:U:C4	2.67	0.47
22:BA:2555:U:C5	22:BA:2556:C:C2	3.02	0.47
24:BC:211:ARG:HD2	24:BC:215:VAL:O	2.13	0.47
25:BD:144:GLY:O	25:BD:145:SER:O	2.32	0.47
25:BD:187:LEU:HD12	25:BD:187:LEU:C	2.38	0.47
26:BE:48:THR:O	26:BE:52:VAL:HG23	2.14	0.47
27:BF:134:GLN:HG3	27:BF:140:ILE:HG12	1.97	0.47
28:BG:104:LEU:HB2	28:BG:112:VAL:HG22	1.89	0.47
29:BH:72:ILE:O	29:BH:72:ILE:HG23	2.14	0.47
29:BH:75:LEU:HD22	29:BH:143:ILE:CG1	2.42	0.47
30:BI:56:VAL:HG22	30:BI:57:VAL:N	2.29	0.47
30:BI:123:ALA:C	30:BI:125:THR:N	2.72	0.47
31:BJ:38:GLY:O	31:BJ:43:GLU:HB2	2.13	0.47
33:BL:93:ASN:O	33:BL:94:THR:HG22	2.13	0.47
38:BQ:20:ALA:HA	38:BQ:23:TYR:CD1	2.49	0.47
39:BR:48:LYS:H	39:BR:48:LYS:CD	2.23	0.47
40:BS:103:ILE:HD12	40:BS:103:ILE:N	2.29	0.47
45:BX:21:LEU:HD23	45:BX:21:LEU:HA	1.55	0.47
46:BY:22:LEU:O	46:BY:23:ARG:O	2.32	0.47
50:B2:21:ARG:HG2	50:B2:31:LEU:HG	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B3:31:ILE:CD1	51:B3:34:LYS:HD2	2.30	0.47
53:CA:265:G:H5'	17:CQ:65:PRO:O	2.13	0.47
53:CA:275:G:O2'	53:CA:276:G:H5'	2.14	0.47
53:CA:391:G:H5''	56:CP:8:ARG:CD	2.44	0.47
53:CA:407:U:H2'	53:CA:408:A:C8	2.49	0.47
53:CA:765:G:C8	53:CA:812:G:N3	2.82	0.47
53:CA:1068:G:C2'	53:CA:1069:C:H5'	2.42	0.47
53:CA:1083:U:C5	53:CA:1084:G:C6	3.02	0.47
53:CA:1147:C:H4'	9:CI:6:TYR:HE1	1.71	0.47
53:CA:1213:A:O2'	53:CA:1214:C:H5''	2.13	0.47
53:CA:1345:U:C2	53:CA:1377:A:C2	3.03	0.47
53:CA:1387:G:C4	53:CA:1388:C:C5	3.02	0.47
53:CA:1397:C:H6	53:CA:1397:C:OP1	1.97	0.47
2:CB:103:TRP:CZ2	2:CB:155:GLY:HA2	2.48	0.47
3:CC:11:LEU:C	3:CC:13:ILE:N	2.71	0.47
5:CE:84:VAL:HG22	5:CE:85:LYS:N	2.28	0.47
54:CG:55:LYS:N	54:CG:55:LYS:HD2	2.28	0.47
14:CN:31:SER:OG	14:CN:45:LEU:HD13	2.14	0.47
20:CT:81:GLN:O	20:CT:82:ILE:HG12	2.14	0.47
22:DA:176:A:H3'	22:DA:177:G:N2	2.29	0.47
22:DA:303:G:C2'	22:DA:304:U:C6	2.97	0.47
22:DA:404:A:C2	22:DA:406:G:N1	2.83	0.47
22:DA:411:G:C5'	22:DA:412:A:OP1	2.62	0.47
22:DA:450:G:H2'	22:DA:451:U:H5''	1.96	0.47
22:DA:622:G:O2'	22:DA:623:C:H5'	2.14	0.47
22:DA:665:U:H2'	22:DA:666:A:C8	2.49	0.47
22:DA:1223:G:O6	39:DR:71:LYS:NZ	2.47	0.47
22:DA:1603:A:N1	22:DA:1604:C:C2	2.82	0.47
22:DA:1844:C:O2'	22:DA:1845:G:H5'	2.14	0.47
22:DA:1877:A:H2'	22:DA:1878:G:C8	2.49	0.47
22:DA:1944:U:C4	22:DA:1955:U:C5	3.02	0.47
22:DA:2209:G:C2	22:DA:2216:G:C2	3.02	0.47
22:DA:2387:U:H5	62:DA:3553:HOH:O	1.98	0.47
22:DA:2660:A:H2	22:DA:2661:G:N7	2.12	0.47
22:DA:2875:C:O2'	22:DA:2876:G:O5'	2.32	0.47
24:DC:38:LYS:HE2	24:DC:55:GLY:O	2.15	0.47
24:DC:135:PRO:HG2	24:DC:138:SER:OG	2.14	0.47
24:DC:140:VAL:HG22	24:DC:161:VAL:O	2.15	0.47
31:DJ:20:ALA:HA	31:DJ:23:LYS:CG	2.43	0.47
33:DL:83:ALA:HB1	33:DL:118:THR:HG22	1.96	0.47
36:DO:71:ALA:HB1	36:DO:102:ARG:O	2.13	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:4:VAL:HG23	39:DR:39:LEU:HG	1.96	0.47
42:DU:42:LYS:HB2	42:DU:42:LYS:HZ2	1.77	0.47
42:DU:44:HIS:HD2	42:DU:57:ILE:HG21	1.79	0.47
44:DW:76:ARG:C	44:DW:77:LYS:HZ2	2.22	0.47
50:D2:10:LEU:HD23	50:D2:10:LEU:C	2.38	0.47
50:D2:18:PHE:O	50:D2:19:ARG:C	2.57	0.47
1:AA:373:A:N3	1:AA:374:A:C8	2.82	0.47
1:AA:544:G:C6	1:AA:545:C:C5	3.03	0.47
1:AA:957:U:O2	1:AA:959:A:C8	2.66	0.47
1:AA:1369:C:H2'	1:AA:1370:G:O4'	2.14	0.47
1:AA:1454:G:H2'	1:AA:1455:G:H8	1.78	0.47
1:AA:1514:G:O2'	1:AA:1515:G:H5'	2.14	0.47
2:AB:165:ALA:CB	2:AB:186:VAL:HG12	2.41	0.47
4:AD:2:ARG:NH2	4:AD:114:ARG:CD	2.77	0.47
4:AD:168:THR:HG22	4:AD:183:ARG:NH2	2.30	0.47
5:AE:82:HIS:HB2	5:AE:83:PRO:CD	2.43	0.47
5:AE:100:GLU:HB3	5:AE:121:ASN:CB	2.44	0.47
7:AG:68:VAL:HG12	7:AG:102:TRP:HE3	1.78	0.47
7:AG:145:GLU:CA	7:AG:148:LYS:HB2	2.44	0.47
8:AH:5:PRO:O	8:AH:8:ASP:HB3	2.14	0.47
10:AJ:18:ILE:O	10:AJ:22:THR:N	2.47	0.47
10:AJ:53:ILE:CD1	14:AN:84:ARG:NH1	2.77	0.47
11:AK:82:GLU:CD	11:AK:82:GLU:H	2.20	0.47
12:AL:33:CYS:HB3	12:AL:54:VAL:HG22	1.96	0.47
12:AL:42:LYS:O	12:AL:43:LYS:C	2.58	0.47
14:AN:26:LEU:O	14:AN:27:LYS:HB3	2.12	0.47
22:BA:545:U:H2'	22:BA:546:U:O3'	2.13	0.47
22:BA:556:A:C8	22:BA:557:C:C5	3.01	0.47
22:BA:704:G:O2'	22:BA:705:A:P	2.72	0.47
22:BA:989:G:H5'	22:BA:1157:G:H4'	1.96	0.47
22:BA:1085:A:C2	22:BA:1086:A:N7	2.82	0.47
22:BA:1097:U:H3'	22:BA:1098:A:H4'	1.96	0.47
22:BA:1279:G:C2'	22:BA:1280:G:H5'	2.44	0.47
22:BA:1324:G:H1'	22:BA:1616:A:N6	2.29	0.47
22:BA:1508:A:O2'	22:BA:1509:A:O5'	2.32	0.47
22:BA:1693:U:O2'	24:BC:13:ARG:NH2	2.47	0.47
22:BA:1866:A:H2'	22:BA:1867:G:O4'	2.14	0.47
22:BA:2004:G:C2'	22:BA:2005:A:H5'	2.44	0.47
22:BA:2018:G:O2'	22:BA:2019:A:H5'	2.15	0.47
22:BA:2318:G:C6	22:BA:2319:G:C6	3.02	0.47
22:BA:2347:C:H2'	22:BA:2348:U:H6	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2420:C:H5''	49:B1:7:LYS:HE2	1.95	0.47
22:BA:2532:G:C5	22:BA:2533:U:C5	3.02	0.47
22:BA:2647:U:O2'	22:BA:2648:G:H5'	2.14	0.47
24:BC:30:ALA:CB	24:BC:31:PRO:CD	2.89	0.47
25:BD:40:LEU:O	25:BD:41:ALA:C	2.57	0.47
26:BE:83:VAL:HG12	26:BE:86:ALA:H	1.79	0.47
27:BF:84:ILE:O	27:BF:84:ILE:CG1	2.62	0.47
28:BG:34:ARG:HD3	28:BG:34:ARG:N	2.27	0.47
32:BK:17:ARG:HB3	32:BK:45:GLU:HB3	1.96	0.47
32:BK:54:LYS:C	32:BK:56:ASP:H	2.22	0.47
33:BL:39:LYS:C	33:BL:40:SER:O	2.55	0.47
33:BL:57:LEU:O	33:BL:61:LEU:HD22	2.14	0.47
34:BM:35:ALA:O	34:BM:36:VAL:CB	2.39	0.47
34:BM:83:GLY:O	34:BM:85:GLY:N	2.48	0.47
37:BP:42:PHE:C	37:BP:42:PHE:CD1	2.92	0.47
42:BU:94:PHE:HA	42:BU:102:ILE:HG22	1.97	0.47
44:BW:40:ARG:HB2	44:BW:56:HIS:ND1	2.28	0.47
53:CA:39:G:H2'	53:CA:40:C:C6	2.47	0.47
53:CA:61:G:H2'	53:CA:62:U:C6	2.48	0.47
53:CA:159:G:C2	53:CA:161:A:OP2	2.68	0.47
53:CA:254:G:HO2'	53:CA:255:G:H5'	1.75	0.47
53:CA:382:A:N7	53:CA:383:A:C6	2.83	0.47
53:CA:542:G:N3	53:CA:543:U:C6	2.82	0.47
53:CA:595:A:C5'	53:CA:596:A:OP1	2.62	0.47
53:CA:892:A:H2'	53:CA:893:C:H6	1.80	0.47
53:CA:962:C:O2'	53:CA:963:G:C8	2.51	0.47
53:CA:1167:A:O2'	53:CA:1168:U:OP1	2.31	0.47
53:CA:1229:A:O2'	53:CA:1230:C:H5''	2.14	0.47
2:CB:119:GLN:HE22	2:CB:136:ARG:HH12	1.62	0.47
2:CB:206:ILE:C	2:CB:208:ALA:H	2.23	0.47
3:CC:62:SER:OG	3:CC:63:ILE:N	2.47	0.47
4:CD:68:GLU:OE2	4:CD:203:TYR:OH	2.27	0.47
54:CG:21:LEU:O	54:CG:25:PHE:N	2.47	0.47
54:CG:103:ILE:HG22	54:CG:103:ILE:O	2.14	0.47
14:CN:61:ASN:CG	14:CN:72:PHE:CZ	2.93	0.47
22:DA:295:G:C2	22:DA:296:U:C6	3.01	0.47
22:DA:395:U:O2'	22:DA:396:G:O5'	2.31	0.47
22:DA:514:A:N3	22:DA:581:C:O2'	2.41	0.47
22:DA:637:A:P	33:DL:112:LEU:HD22	2.54	0.47
22:DA:677:A:O2'	22:DA:2071:A:C5'	2.59	0.47
22:DA:714:U:H2'	22:DA:716:A:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:774:G:O2'	22:DA:775:G:H8	1.97	0.47
22:DA:774:G:HO2'	22:DA:775:G:H8	1.62	0.47
22:DA:777:G:N7	22:DA:793:A:H2	2.12	0.47
22:DA:811:U:O2'	22:DA:1251:C:O4'	2.27	0.47
22:DA:876:C:O2	22:DA:876:C:C4'	2.62	0.47
22:DA:1146:C:N4	22:DA:1147:A:N6	2.63	0.47
22:DA:1324:G:N2	22:DA:1328:A:N1	2.62	0.47
22:DA:1716:U:O2	22:DA:1717:A:C8	2.67	0.47
22:DA:1973:G:O2'	22:DA:1974:C:H5'	2.14	0.47
22:DA:2069:G:C2	22:DA:2443:C:C2	3.02	0.47
22:DA:2598:A:H2'	22:DA:2599:G:O4'	2.13	0.47
22:DA:2620:C:H2'	22:DA:2621:G:O4'	2.15	0.47
22:DA:2842:G:H2'	22:DA:2843:G:O4'	2.14	0.47
22:DA:2843:G:C2	22:DA:2875:C:N3	2.83	0.47
57:DB:58:A:H2'	57:DB:59:A:N7	2.24	0.47
25:DD:106:LYS:CG	25:DD:206:ALA:HB3	2.44	0.47
26:DE:139:LYS:HB2	26:DE:139:LYS:HZ2	1.73	0.47
58:DF:102:LEU:HB3	58:DF:103:ILE:HD12	1.95	0.47
29:DH:83:LYS:HG3	29:DH:149:GLU:H	1.78	0.47
30:DI:12:VAL:CG1	30:DI:13:ALA:N	2.77	0.47
31:DJ:1:MET:SD	31:DJ:2:LYS:NZ	2.87	0.47
31:DJ:42:ALA:C	31:DJ:44:TYR:H	2.23	0.47
33:DL:29:LYS:HG2	33:DL:30:THR:HG23	1.96	0.47
35:DN:81:ASN:O	35:DN:82:GLU:HB2	2.14	0.47
35:DN:83:LEU:O	35:DN:87:PHE:HB2	2.14	0.47
37:DP:19:PHE:CE1	37:DP:58:PHE:CD2	3.03	0.47
38:DQ:86:SER:O	38:DQ:87:VAL:C	2.57	0.47
40:DS:68:ASP:OD1	40:DS:68:ASP:N	2.45	0.47
40:DS:103:ILE:HD12	40:DS:103:ILE:H	1.79	0.47
42:DU:3:LYS:O	42:DU:5:ARG:HD3	2.14	0.47
42:DU:48:VAL:C	42:DU:50:ALA:H	2.23	0.47
44:DW:14:ASP:C	44:DW:16:GLU:H	2.23	0.47
44:DW:46:ALA:CA	44:DW:50:VAL:HG12	2.44	0.47
48:D0:11:LYS:HD2	48:D0:14:MET:HB2	1.95	0.47
51:D3:15:LYS:HG2	51:D3:16:THR:H	1.79	0.47
1:AA:198:G:C2'	1:AA:199:A:C8	2.95	0.47
1:AA:211:G:N1	1:AA:212:G:N3	2.62	0.47
1:AA:545:C:C3'	1:AA:546:A:H5'	2.44	0.47
1:AA:829:G:C2'	1:AA:830:G:H5'	2.44	0.47
1:AA:844:G:H5''	1:AA:845:A:OP1	2.15	0.47
1:AA:1329:A:H5''	13:AM:25:GLY:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1392:G:H8	1:AA:1392:G:O5'	1.98	0.47
1:AA:1417:G:N2	1:AA:1482:G:H2'	2.29	0.47
1:AA:1498:U:H4'	1:AA:1499:A:OP1	2.15	0.47
7:AG:78:ARG:HH22	7:AG:81:GLY:HA2	1.78	0.47
7:AG:128:GLU:O	7:AG:129:ASN:C	2.57	0.47
8:AH:87:ARG:O	8:AH:88:LYS:HB3	2.15	0.47
12:AL:82:ARG:HG2	12:AL:82:ARG:HH11	1.78	0.47
13:AM:28:ARG:NH2	13:AM:62:PHE:HB2	2.30	0.47
15:AO:16:ARG:HD3	15:AO:20:ASP:OD2	2.14	0.47
20:AT:8:LYS:CA	20:AT:11:ILE:HG23	2.44	0.47
22:BA:679:C:H2'	22:BA:680:C:H6	1.80	0.47
22:BA:800:A:C4'	22:BA:801:G:O5'	2.59	0.47
22:BA:966:G:C5	22:BA:967:U:C4	3.03	0.47
22:BA:1015:U:O2'	22:BA:1016:G:H5'	2.13	0.47
22:BA:1153:C:H2'	22:BA:1154:G:O4'	2.15	0.47
22:BA:1225:G:OP1	39:BR:71:LYS:HE3	2.14	0.47
22:BA:1456:G:C5	22:BA:1457:U:C5	3.02	0.47
22:BA:1505:A:C6	22:BA:1506:U:N3	2.82	0.47
22:BA:1731:G:H2'	22:BA:1732:C:H5''	1.95	0.47
22:BA:1734:G:C2'	22:BA:1735:A:H8	2.27	0.47
22:BA:1905:C:H2'	22:BA:1930:G:C8	2.49	0.47
22:BA:1959:G:H2'	22:BA:1960:A:O5'	2.14	0.47
22:BA:2282:G:H5''	22:BA:2283:C:O4'	2.14	0.47
22:BA:2823:A:C2'	22:BA:2824:C:H5'	2.45	0.47
26:BE:12:LEU:HD22	26:BE:12:LEU:HA	1.59	0.47
26:BE:187:VAL:CG1	26:BE:188:MET:N	2.76	0.47
27:BF:39:VAL:HG13	27:BF:84:ILE:HD12	1.96	0.47
28:BG:144:ALA:O	28:BG:145:ALA:C	2.57	0.47
28:BG:169:ARG:C	28:BG:170:THR:HG23	2.39	0.47
31:BJ:4:PHE:CD1	31:BJ:4:PHE:C	2.89	0.47
32:BK:1:MET:CE	32:BK:32:TYR:CE1	2.98	0.47
32:BK:4:GLU:O	32:BK:5:GLN:HB2	2.14	0.47
32:BK:91:SER:O	32:BK:93:GLN:CB	2.58	0.47
35:BN:59:SER:O	35:BN:60:VAL:C	2.55	0.47
38:BQ:39:ILE:O	38:BQ:42:GLY:N	2.47	0.47
38:BQ:111:LYS:HD3	39:BR:48:LYS:HD3	1.97	0.47
41:BT:67:VAL:CG1	41:BT:76:ARG:HG3	2.28	0.47
44:BW:23:LYS:CG	44:BW:24:ARG:N	2.77	0.47
47:BZ:3:THR:C	47:BZ:4:ILE:HG22	2.39	0.47
53:CA:132:C:O2'	53:CA:133:U:H5'	2.13	0.47
53:CA:245:U:H6	53:CA:245:U:C5'	2.26	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:429:U:H4'	53:CA:430:A:O5'	2.12	0.47
53:CA:702:A:OP1	53:CA:702:A:C8	2.65	0.47
53:CA:964:A:C2	53:CA:972:C:N3	2.82	0.47
53:CA:1053:G:C6	53:CA:1199:U:C2	3.03	0.47
53:CA:1147:C:O2	9:CI:17:ARG:NE	2.47	0.47
53:CA:1255:G:H2'	53:CA:1278:G:H21	1.79	0.47
53:CA:1523:G:P	11:CK:124:LYS:NZ	2.86	0.47
2:CB:132:GLU:C	2:CB:134:LEU:H	2.22	0.47
2:CB:183:PHE:CE2	2:CB:197:PHE:CD2	3.03	0.47
3:CC:28:PHE:HZ	14:CN:93:PRO:HD2	1.77	0.47
3:CC:181:ILE:HG12	3:CC:202:PHE:CA	2.44	0.47
4:CD:165:GLU:O	4:CD:166:LYS:CB	2.62	0.47
5:CE:135:VAL:O	5:CE:139:THR:HG23	2.15	0.47
54:CG:115:MET:HE1	54:CG:119:LEU:HB3	1.97	0.47
11:CK:64:VAL:O	11:CK:68:ARG:CB	2.61	0.47
11:CK:74:LYS:CG	11:CK:78:ILE:HD11	2.44	0.47
55:CM:75:SER:HB2	55:CM:79:LEU:HD11	1.96	0.47
18:CR:39:VAL:HG12	18:CR:40:PRO:HD2	1.97	0.47
19:CS:11:ASP:H	19:CS:14:LEU:HD21	1.78	0.47
22:DA:95:A:O2'	46:DY:40:SER:N	2.48	0.47
22:DA:125:A:H5''	50:D2:19:ARG:HB2	1.96	0.47
22:DA:357:C:H2'	22:DA:358:U:H6	1.79	0.47
22:DA:782:A:H4'	22:DA:783:A:O5'	2.13	0.47
22:DA:1092:C:C2'	22:DA:1093:G:H5'	2.44	0.47
22:DA:1120:G:C6	22:DA:1121:C:C4	3.02	0.47
22:DA:1238:G:H2'	22:DA:1239:G:H8	1.79	0.47
22:DA:1312:U:O2'	22:DA:1314:C:C5	2.67	0.47
22:DA:1441:G:C4	22:DA:1551:A:C2	3.02	0.47
22:DA:1555:G:C2	22:DA:1556:C:N3	2.83	0.47
22:DA:1565:C:O2'	22:DA:1566:A:O5'	2.30	0.47
22:DA:1671:U:O2	22:DA:1673:G:C8	2.68	0.47
22:DA:2179:C:H5'	22:DA:2179:C:H6	1.80	0.47
22:DA:2195:U:C2	22:DA:2196:C:C6	3.03	0.47
22:DA:2221:G:O2'	22:DA:2222:C:H5'	2.14	0.47
22:DA:2290:G:C6	22:DA:2291:U:C4	3.02	0.47
22:DA:2298:A:O2'	22:DA:2299:U:C6	2.66	0.47
22:DA:2439:A:H2'	22:DA:2439:A:N3	2.30	0.47
57:DB:54:G:O2'	58:DF:24:VAL:HG21	2.14	0.47
25:DD:112:THR:HG22	25:DD:113:SER:N	2.29	0.47
26:DE:18:THR:HG22	26:DE:106:LYS:HE2	1.96	0.47
26:DE:129:PRO:HG3	26:DE:159:LEU:HD23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:37:MET:N	58:DF:151:LEU:HB3	2.29	0.47
58:DF:66:ILE:HG13	58:DF:83:PRO:HB3	1.97	0.47
28:DG:36:LEU:HD12	28:DG:36:LEU:N	2.28	0.47
29:DH:48:GLU:HG2	29:DH:51:ARG:HH21	1.80	0.47
29:DH:49:ALA:O	29:DH:53:GLU:HB2	2.14	0.47
31:DJ:45:THR:OG1	31:DJ:48:VAL:HB	2.15	0.47
31:DJ:97:PRO:C	31:DJ:99:ARG:H	2.22	0.47
32:DK:13:ASN:ND2	32:DK:13:ASN:H	2.12	0.47
33:DL:48:ARG:HG3	33:DL:48:ARG:NH1	2.28	0.47
33:DL:110:VAL:C	33:DL:111:ILE:CD1	2.85	0.47
35:DN:61:ALA:O	35:DN:65:LEU:HD13	2.13	0.47
36:DO:31:THR:HG21	36:DO:36:TYR:CE2	2.49	0.47
40:DS:14:ALA:HB1	40:DS:18:ARG:NH2	2.30	0.47
42:DU:3:LYS:HE2	42:DU:84:PHE:CE1	2.46	0.47
43:DV:49:ASN:O	43:DV:52:ALA:HB3	2.14	0.47
44:DW:18:LYS:HA	44:DW:18:LYS:NZ	2.29	0.47
45:DX:53:LYS:CA	45:DX:56:ARG:HB3	2.28	0.47
1:AA:184:G:O4'	1:AA:224:U:H4'	2.14	0.47
1:AA:243:A:C2	1:AA:246:A:C8	3.02	0.47
1:AA:464:U:N3	1:AA:466:A:C5'	2.77	0.47
1:AA:511:C:O2'	1:AA:512:U:P	2.72	0.47
1:AA:546:A:H4'	1:AA:548:G:O3'	2.13	0.47
1:AA:577:G:H2'	1:AA:578:C:C6	2.49	0.47
1:AA:865:A:C2	1:AA:918:A:H4'	2.50	0.47
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.49	0.47
1:AA:1505:G:H5''	62:AA:1803:HOH:O	2.14	0.47
3:AC:10:ARG:NH2	3:AC:181:ILE:HG13	2.29	0.47
3:AC:107:LYS:HB2	3:AC:107:LYS:HZ2	1.79	0.47
3:AC:179:ALA:HB1	3:AC:202:PHE:CE1	2.50	0.47
4:AD:109:THR:CG2	4:AD:112:GLU:CB	2.92	0.47
8:AH:64:TYR:HD1	8:AH:64:TYR:N	2.13	0.47
8:AH:88:LYS:CG	8:AH:89:ASP:N	2.71	0.47
10:AJ:12:ALA:O	10:AJ:70:HIS:CD2	2.67	0.47
10:AJ:35:GLN:HE21	10:AJ:35:GLN:HA	1.80	0.47
14:AN:48:GLN:HA	14:AN:48:GLN:NE2	2.28	0.47
15:AO:2:LEU:O	15:AO:3:SER:C	2.57	0.47
22:BA:271:G:C6	22:BA:272:A:N6	2.83	0.47
22:BA:522:A:C6	22:BA:523:C:C4	3.01	0.47
22:BA:562:U:H2'	22:BA:572:A:O4'	2.14	0.47
22:BA:633:A:H2'	22:BA:634:C:H5'	1.96	0.47
22:BA:686:U:H2'	22:BA:788:A:C2	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:907:G:H2'	22:BA:908:C:H5'	1.96	0.47
22:BA:939:G:N2	22:BA:940:G:H1'	2.29	0.47
22:BA:946:C:P	62:BA:3344:HOH:O	2.72	0.47
22:BA:1037:G:C2	22:BA:1119:U:O2	2.68	0.47
22:BA:1059:G:O2'	30:BI:128:ILE:HD13	2.15	0.47
22:BA:1075:C:N3	22:BA:1076:C:C4	2.82	0.47
22:BA:1589:U:N3	22:BA:1590:A:N7	2.63	0.47
22:BA:1664:A:H1'	22:BA:2726:A:N1	2.29	0.47
22:BA:1690:A:H2'	22:BA:1691:C:H5'	1.95	0.47
22:BA:1941:C:C5	22:BA:1965:C:C6	3.02	0.47
22:BA:2443:C:O2'	22:BA:2444:G:H5'	2.15	0.47
22:BA:2663:G:C4	22:BA:2664:G:C8	3.03	0.47
22:BA:2682:A:C8	25:BD:11:MET:HG2	2.49	0.47
24:BC:64:VAL:O	24:BC:64:VAL:HG12	2.15	0.47
27:BF:174:PHE:HD1	27:BF:176:PHE:CE1	2.32	0.47
28:BG:8:VAL:HG12	28:BG:9:VAL:H	1.79	0.47
28:BG:117:PRO:O	28:BG:118:ALA:O	2.33	0.47
30:BI:91:LYS:O	30:BI:97:VAL:HG21	2.14	0.47
37:BP:50:ARG:HG3	37:BP:57:ALA:O	2.15	0.47
43:BV:40:ILE:HG21	43:BV:42:LEU:HD21	1.97	0.47
44:BW:41:GLY:C	44:BW:43:LYS:H	2.19	0.47
46:BY:6:LEU:HD13	46:BY:56:LEU:CD1	2.45	0.47
48:B0:53:VAL:O	48:B0:54:ILE:O	2.31	0.47
49:B1:43:ARG:O	49:B1:44:GLN:HG2	2.14	0.47
51:B3:30:HIS:ND1	51:B3:31:ILE:HG22	2.29	0.47
53:CA:77:A:C2	53:CA:93:U:C2	3.02	0.47
53:CA:652:U:H1'	53:CA:653:U:C5	2.49	0.47
53:CA:708:C:H4'	11:CK:38:GLY:HA3	1.95	0.47
53:CA:833:G:O2'	53:CA:834:U:H5'	2.15	0.47
53:CA:1026:G:N2	53:CA:1036:A:H61	2.11	0.47
53:CA:1061:G:C5	53:CA:1197:A:C2	3.03	0.47
53:CA:1087:G:H2'	53:CA:1088:G:H8	1.79	0.47
53:CA:1350:A:C2'	53:CA:1351:U:H5'	2.44	0.47
2:CB:37:VAL:CG2	2:CB:38:HIS:N	2.76	0.47
2:CB:216:VAL:O	2:CB:220:VAL:HG23	2.15	0.47
4:CD:102:TYR:C	4:CD:104:MET:H	2.21	0.47
5:CE:80:LEU:HD13	5:CE:146:MET:HE1	1.96	0.47
54:CG:32:ASP:CB	54:CG:34:LYS:HD3	2.43	0.47
8:CH:102:VAL:CG2	8:CH:125:ILE:HD12	2.45	0.47
9:CI:57:VAL:O	9:CI:57:VAL:HG12	2.15	0.47
10:CJ:31:ARG:NH2	10:CJ:32:THR:HB	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:100:ARG:CZ	55:CM:102:LYS:HD3	2.45	0.47
19:CS:52:ASN:HD22	19:CS:54:ARG:H	1.61	0.47
19:CS:57:VAL:HG21	19:CS:75:PRO:HD2	1.96	0.47
22:DA:71:A:OP2	22:DA:71:A:H3'	2.15	0.47
22:DA:476:G:O2'	22:DA:477:A:O5'	2.32	0.47
22:DA:564:C:H3'	22:DA:564:C:C6	2.50	0.47
22:DA:616:A:H4'	26:DE:101:TYR:OH	2.14	0.47
22:DA:642:U:H2'	22:DA:644:A:OP2	2.14	0.47
22:DA:1014:A:C2'	22:DA:1015:U:H5'	2.45	0.47
22:DA:1838:C:C4	22:DA:1899:A:N3	2.83	0.47
22:DA:2025:C:OP1	25:DD:154:LYS:HE2	2.15	0.47
22:DA:2036:C:O2'	22:DA:2037:A:C5'	2.62	0.47
22:DA:2144:G:C2	22:DA:2148:G:O6	2.68	0.47
22:DA:2376:A:C2	36:DO:99:TYR:CD2	3.02	0.47
22:DA:2469:A:C6	22:DA:2482:A:C8	3.02	0.47
22:DA:2725:A:O2'	22:DA:2726:A:C8	2.64	0.47
22:DA:2742:G:O2'	22:DA:2743:U:H5'	2.13	0.47
22:DA:2818:U:H2'	22:DA:2819:G:C8	2.49	0.47
57:DB:23:G:N2	57:DB:61:G:C2	2.82	0.47
57:DB:55:U:H1'	58:DF:25:MET:HE1	1.96	0.47
58:DF:57:ALA:HA	58:DF:60:SER:HB3	1.95	0.47
58:DF:177:ARG:NE	58:DF:178:LYS:N	2.47	0.47
28:DG:43:LYS:HB2	28:DG:50:THR:O	2.14	0.47
28:DG:82:PHE:HB3	28:DG:140:ILE:CD1	2.43	0.47
28:DG:139:VAL:HA	28:DG:142:GLN:HB3	1.96	0.47
28:DG:154:GLU:O	28:DG:156:TYR:N	2.47	0.47
29:DH:41:LYS:HA	29:DH:44:ILE:CD1	2.44	0.47
29:DH:125:THR:HG22	29:DH:146:VAL:CG1	2.41	0.47
30:DI:22:PRO:HB2	30:DI:23:VAL:H	1.57	0.47
31:DJ:25:LEU:HB2	31:DJ:62:VAL:CG2	2.43	0.47
32:DK:39:ILE:CD1	32:DK:62:VAL:HG23	2.38	0.47
35:DN:51:LEU:HA	35:DN:54:LEU:HD21	1.96	0.47
37:DP:112:ARG:HD2	37:DP:114:ASN:HD21	1.79	0.47
42:DU:95:PHE:CD1	42:DU:95:PHE:N	2.69	0.47
43:DV:80:HIS:NE2	43:DV:83:LYS:HB2	2.29	0.47
46:DY:37:LEU:HD13	46:DY:42:LEU:HD11	1.95	0.47
47:DZ:22:THR:OG1	47:DZ:50:VAL:HG11	2.14	0.47
1:AA:443:C:H2'	1:AA:444:G:C5'	2.44	0.47
1:AA:731:G:O2'	1:AA:732:C:H5'	2.15	0.47
1:AA:981:U:N3	1:AA:982:U:C4	2.82	0.47
1:AA:1346:A:C4	1:AA:1348:U:C4	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1504:G:C3'	1:AA:1505:G:H5'	2.44	0.47
2:AB:187:ASP:HB2	2:AB:203:ASP:CB	2.43	0.47
2:AB:206:ILE:HD13	2:AB:207:ARG:H	1.79	0.47
3:AC:10:ARG:O	3:AC:11:LEU:C	2.58	0.47
3:AC:106:ARG:O	3:AC:106:ARG:CG	2.62	0.47
4:AD:196:GLU:O	4:AD:200:VAL:HG23	2.14	0.47
7:AG:68:VAL:O	7:AG:69:ARG:C	2.57	0.47
10:AJ:70:HIS:CD2	10:AJ:70:HIS:H	2.32	0.47
18:AR:59:LYS:O	18:AR:62:ARG:N	2.47	0.47
20:AT:60:GLN:NE2	20:AT:65:LEU:HD21	2.29	0.47
22:BA:6:A:C2'	22:BA:7:G:H5'	2.44	0.47
22:BA:245:G:H2'	22:BA:246:C:C6	2.48	0.47
22:BA:247:G:H4'	22:BA:386:G:C5	2.50	0.47
22:BA:273:G:O2'	22:BA:274:C:C5'	2.63	0.47
22:BA:372:G:O2'	22:BA:400:G:O6	2.31	0.47
22:BA:447:A:C2	22:BA:454:A:C8	3.03	0.47
22:BA:1014:A:H2'	22:BA:1015:U:C6	2.50	0.47
22:BA:1113:U:H2'	22:BA:1114:C:C6	2.45	0.47
22:BA:1333:G:O2'	22:BA:1334:G:H5'	2.14	0.47
22:BA:2235:G:O2'	22:BA:2236:U:H5'	2.15	0.47
22:BA:2266:A:H4'	22:BA:2267:A:O5'	2.15	0.47
22:BA:2289:G:O2'	22:BA:2290:G:H5'	2.15	0.47
22:BA:2347:C:OP1	22:BA:2347:C:H4'	2.14	0.47
22:BA:2396:G:C2'	22:BA:2397:G:H5'	2.43	0.47
22:BA:2492:U:H2'	22:BA:2493:U:H6	1.78	0.47
22:BA:2509:G:C2'	22:BA:2510:C:C5'	2.87	0.47
22:BA:2722:G:H4'	35:BN:3:HIS:O	2.15	0.47
23:BB:12:C:C5	44:BW:72:GLY:HA3	2.50	0.47
24:BC:7:PRO:C	24:BC:9:SER:H	2.22	0.47
24:BC:73:ILE:H	24:BC:73:ILE:HG12	1.38	0.47
24:BC:212:TRP:HD1	24:BC:212:TRP:O	1.97	0.47
25:BD:56:LYS:HD3	25:BD:58:ASN:HD21	1.79	0.47
25:BD:85:ALA:O	25:BD:86:GLU:HB2	2.15	0.47
26:BE:152:GLU:O	26:BE:153:LEU:O	2.33	0.47
28:BG:8:VAL:O	28:BG:9:VAL:CG1	2.52	0.47
29:BH:9:VAL:HG12	29:BH:13:GLY:H	1.78	0.47
33:BL:68:SER:O	33:BL:69:ARG:HB2	2.14	0.47
33:BL:82:LEU:C	33:BL:84:LYS:H	2.21	0.47
34:BM:41:LEU:N	34:BM:41:LEU:HD23	2.29	0.47
35:BN:18:GLN:NE2	35:BN:22:ARG:NH1	2.62	0.47
35:BN:33:ILE:HG12	35:BN:118:ARG:NE	2.28	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:33:ILE:CG1	35:BN:118:ARG:NE	2.78	0.47
36:BO:68:LYS:O	36:BO:71:ALA:HB3	2.15	0.47
37:BP:88:ARG:HG2	37:BP:112:ARG:NH1	2.30	0.47
38:BQ:13:HIS:CD2	38:BQ:31:TYR:CD1	3.02	0.47
39:BR:25:LEU:N	39:BR:94:THR:CG2	2.66	0.47
40:BS:41:LYS:C	40:BS:43:ALA:N	2.71	0.47
53:CA:164:G:C2'	53:CA:165:G:H5'	2.45	0.47
53:CA:254:G:H4'	17:CQ:70:LYS:HD2	1.96	0.47
53:CA:433:G:C2'	53:CA:434:U:H5'	2.44	0.47
53:CA:505:G:N3	53:CA:506:G:C8	2.83	0.47
53:CA:1067:A:C4'	53:CA:1068:G:O5'	2.62	0.47
53:CA:1071:C:H2'	53:CA:1072:G:C8	2.49	0.47
53:CA:1146:A:H2'	53:CA:1147:C:C5	2.49	0.47
53:CA:1179:A:H2'	53:CA:1180:A:O4'	2.15	0.47
53:CA:1221:G:N2	53:CA:1222:G:H1'	2.30	0.47
5:CE:81:GLN:OE1	5:CE:149:PRO:CD	2.63	0.47
9:CI:4:GLN:H	9:CI:4:GLN:HG2	1.55	0.47
9:CI:27:ILE:HB	9:CI:34:LEU:HB2	1.96	0.47
9:CI:71:ILE:HD13	9:CI:72:SER:H	1.78	0.47
9:CI:127:SER:O	9:CI:128:LYS:HB3	2.15	0.47
19:CS:62:THR:CG2	19:CS:64:GLU:HG3	2.44	0.47
21:CU:33:ARG:NH2	21:CU:34:ARG:CD	2.78	0.47
22:DA:157:C:H2'	22:DA:157:C:O2	2.15	0.47
22:DA:183:C:HO2'	22:DA:432:A:H1'	1.79	0.47
22:DA:184:C:H2'	22:DA:185:G:C8	2.50	0.47
22:DA:247:G:H4'	22:DA:386:G:C6	2.47	0.47
22:DA:321:U:C1'	26:DE:159:LEU:HG	2.43	0.47
22:DA:389:G:C6	22:DA:2413:G:O2'	2.67	0.47
22:DA:859:G:C2	22:DA:916:G:H2'	2.49	0.47
22:DA:1114:C:O2'	22:DA:1115:G:C8	2.61	0.47
22:DA:1139:G:H2'	22:DA:1140:C:C5'	2.45	0.47
22:DA:1187:G:H5''	39:DR:83:TYR:CE1	2.49	0.47
22:DA:1349:C:H2'	22:DA:1350:C:C5	2.49	0.47
22:DA:1380:G:C2	22:DA:1381:G:C8	3.03	0.47
22:DA:1489:C:C4'	22:DA:1490:A:OP1	2.58	0.47
22:DA:1565:C:HO2'	22:DA:1566:A:P	2.37	0.47
22:DA:1587:G:N2	22:DA:1588:G:C1'	2.75	0.47
22:DA:1654:A:O2'	22:DA:1655:A:H5'	2.14	0.47
22:DA:1667:G:C2'	22:DA:1991:U:O4	2.62	0.47
22:DA:1914:C:O2'	22:DA:1915:U:H6	1.97	0.47
22:DA:1991:U:C2'	22:DA:1992:G:H5'	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2020:A:H5'	48:D0:8:THR:HG22	1.97	0.47
22:DA:2387:U:H1'	44:DW:38:ARG:HH12	1.78	0.47
22:DA:2401:U:H5''	22:DA:2402:U:OP2	2.14	0.47
22:DA:2463:C:C2	22:DA:2488:G:C2	3.03	0.47
22:DA:2550:G:O6	22:DA:2551:C:N4	2.47	0.47
24:DC:24:HIS:N	24:DC:80:LEU:O	2.47	0.47
58:DF:28:PRO:CB	58:DF:168:LEU:HD11	2.44	0.47
58:DF:39:VAL:HG13	58:DF:49:LEU:HD21	1.94	0.47
28:DG:117:PRO:HG2	28:DG:143:VAL:HG11	1.96	0.47
31:DJ:120:ARG:O	31:DJ:123:LYS:NZ	2.46	0.47
34:DM:116:ALA:C	34:DM:118:LYS:H	2.22	0.47
36:DO:77:ALA:O	36:DO:81:ARG:HG3	2.15	0.47
37:DP:5:LYS:O	37:DP:9:GLN:HG2	2.14	0.47
38:DQ:15:LYS:CD	38:DQ:19:GLN:HE21	2.28	0.47
38:DQ:46:TYR:HB2	39:DR:74:ILE:HG23	1.96	0.47
43:DV:6:ALA:HB1	43:DV:40:ILE:HB	1.97	0.47
43:DV:69:GLU:C	43:DV:70:ILE:HD13	2.39	0.47
48:D0:26:SER:C	48:D0:27:LEU:HD13	2.38	0.47
48:D0:38:LEU:N	48:D0:41:HIS:CE1	2.82	0.47
49:D1:42:VAL:O	49:D1:42:VAL:HG12	2.13	0.47
1:AA:11:G:C6	1:AA:12:U:C4	3.02	0.47
1:AA:161:A:N6	1:AA:162:A:C6	2.83	0.47
1:AA:174:A:H2'	1:AA:175:C:H6	1.75	0.47
1:AA:191:G:H2'	1:AA:192:A:O4'	2.14	0.47
1:AA:201:G:H2'	1:AA:202:G:O4'	2.15	0.47
1:AA:275:G:C5	1:AA:276:G:N7	2.83	0.47
1:AA:284:C:H2'	1:AA:285:C:C6	2.49	0.47
1:AA:499:A:H1'	1:AA:500:G:C8	2.49	0.47
1:AA:620:C:C2'	1:AA:621:A:H5'	2.44	0.47
1:AA:701:U:O2'	1:AA:702:A:P	2.73	0.47
1:AA:938:A:C6	1:AA:939:G:C5	3.03	0.47
1:AA:948:C:H5'	1:AA:1306:A:O2'	2.14	0.47
1:AA:1134:G:N1	1:AA:1141:C:C4	2.83	0.47
1:AA:1256:A:C6	1:AA:1278:G:C2	3.02	0.47
1:AA:1320:C:N3	19:AS:35:ARG:NH1	2.61	0.47
1:AA:1328:C:H5''	13:AM:27:THR:HG21	1.96	0.47
1:AA:1374:A:H2'	1:AA:1375:A:H8	1.79	0.47
2:AB:42:LEU:HG	2:AB:43:GLU:CG	2.29	0.47
2:AB:56:LEU:CD1	2:AB:220:VAL:HG22	2.44	0.47
2:AB:153:MET:HE1	2:AB:157:PRO:CG	2.45	0.47
2:AB:209:VAL:O	2:AB:211:LEU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:AC:139:ASN:ND2	3:AC:139:ASN:C	2.71	0.47
4:AD:18:LEU:HD22	4:AD:63:ILE:HB	1.97	0.47
4:AD:29:THR:CG2	4:AD:30:LYS:N	2.77	0.47
4:AD:80:ARG:HH21	4:AD:81:LEU:HD21	1.80	0.47
6:AF:15:SER:O	6:AF:18:VAL:HG23	2.15	0.47
9:AI:6:TYR:CE2	9:AI:17:ARG:HB2	2.48	0.47
9:AI:117:LEU:HD13	9:AI:120:ALA:O	2.14	0.47
11:AK:21:HIS:CD2	11:AK:34:THR:CG2	2.97	0.47
11:AK:109:ILE:C	11:AK:110:THR:HG23	2.39	0.47
14:AN:63:CYS:HB2	14:AN:79:SER:OG	2.15	0.47
15:AO:24:THR:HG22	15:AO:69:LEU:HD12	1.96	0.47
17:AQ:60:ILE:CG2	17:AQ:61:ARG:N	2.77	0.47
19:AS:41:PRO:C	19:AS:43:MET:H	2.21	0.47
22:BA:20:C:O2'	22:BA:21:A:H5'	2.15	0.47
22:BA:64:A:H2'	22:BA:65:U:C6	2.50	0.47
22:BA:276:U:O2'	22:BA:277:G:O5'	2.32	0.47
22:BA:364:C:O5'	22:BA:364:C:H6	1.97	0.47
22:BA:524:G:O2'	22:BA:525:U:H5'	2.15	0.47
22:BA:544:C:H3'	22:BA:545:U:C2	2.49	0.47
22:BA:555:G:O2'	22:BA:556:A:P	2.73	0.47
22:BA:686:U:O4	50:B2:12:ARG:HB2	2.15	0.47
22:BA:734:A:C4	22:BA:735:A:C8	3.03	0.47
22:BA:905:A:C6	22:BA:906:U:C5	3.03	0.47
22:BA:928:A:H2'	22:BA:929:U:O4'	2.15	0.47
22:BA:1000:A:C6	22:BA:1001:A:C6	3.03	0.47
22:BA:1071:G:C4	22:BA:1089:A:C5	3.03	0.47
22:BA:1249:U:H5'	22:BA:1249:U:C6	2.49	0.47
22:BA:1333:G:H2'	22:BA:1334:G:H8	1.79	0.47
22:BA:1594:U:H2'	22:BA:1595:C:C6	2.50	0.47
22:BA:1725:U:O2'	22:BA:1726:C:H5'	2.15	0.47
22:BA:1815:A:H1'	22:BA:1817:G:N7	2.30	0.47
22:BA:1867:G:C2'	22:BA:1868:C:C5'	2.90	0.47
22:BA:2291:U:C4	22:BA:2292:U:O4	2.67	0.47
22:BA:2305:U:H2'	22:BA:2306:C:O4'	2.15	0.47
22:BA:2454:G:H1'	62:BA:3527:HOH:O	2.15	0.47
22:BA:2643:G:C2	22:BA:2772:C:C2	3.02	0.47
22:BA:2663:G:H2'	22:BA:2664:G:H8	1.80	0.47
22:BA:2768:U:C4	22:BA:2769:U:C5	3.03	0.47
23:BB:54:G:H21	27:BF:25:MET:HE3	1.80	0.47
24:BC:94:LEU:O	24:BC:94:LEU:HG	2.12	0.47
24:BC:141:HIS:HD2	24:BC:192:GLY:O	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:110:THR:OG1	25:BD:171:THR:HB	2.15	0.47
25:BD:157:LYS:HB3	31:BJ:80:HIS:CD2	2.50	0.47
25:BD:193:VAL:HB	25:BD:194:PRO:HD2	1.96	0.47
26:BE:121:VAL:O	26:BE:189:THR:HA	2.14	0.47
27:BF:161:SER:OG	27:BF:164:GLU:HG3	2.14	0.47
28:BG:59:ASP:CB	28:BG:63:GLN:HG2	2.32	0.47
29:BH:30:LEU:O	29:BH:35:LYS:HB2	2.15	0.47
29:BH:69:ALA:HB1	29:BH:72:ILE:CG2	2.44	0.47
29:BH:80:ILE:O	29:BH:81:ALA:HB2	2.15	0.47
29:BH:80:ILE:CG2	29:BH:147:VAL:HG21	2.43	0.47
30:BI:40:ALA:HB3	30:BI:68:PHE:CE1	2.50	0.47
30:BI:60:VAL:HG22	30:BI:66:PHE:CB	2.45	0.47
32:BK:61:VAL:O	32:BK:84:CYS:HA	2.15	0.47
33:BL:9:ALA:HB3	33:BL:12:SER:CB	2.45	0.47
34:BM:80:VAL:CG2	34:BM:81:ARG:N	2.73	0.47
37:BP:25:VAL:CG1	37:BP:46:VAL:HG23	2.44	0.47
39:BR:25:LEU:N	39:BR:94:THR:HG21	2.26	0.47
39:BR:37:GLU:OE1	39:BR:37:GLU:O	2.33	0.47
40:BS:46:LEU:HD23	40:BS:46:LEU:HA	1.57	0.47
42:BU:96:LYS:O	42:BU:97:SER:C	2.57	0.47
43:BV:70:ILE:O	43:BV:71:LYS:CB	2.61	0.47
53:CA:248:C:O2'	53:CA:249:U:P	2.73	0.47
53:CA:376:G:H5''	56:CP:5:ARG:HB2	1.97	0.47
53:CA:435:A:C6	53:CA:436:C:C5	3.03	0.47
53:CA:502:A:H4'	53:CA:550:G:H4'	1.97	0.47
53:CA:640:A:O2'	8:CH:106:SER:HB2	2.14	0.47
53:CA:701:U:O2'	53:CA:702:A:P	2.73	0.47
53:CA:885:G:O2'	53:CA:886:G:H5'	2.14	0.47
53:CA:1004:A:O2'	53:CA:1005:A:H5'	2.14	0.47
53:CA:1017:U:OP2	53:CA:1017:U:H6	1.98	0.47
53:CA:1053:G:C6	53:CA:1199:U:H2'	2.49	0.47
53:CA:1106:G:C2	53:CA:1107:C:C6	3.03	0.47
53:CA:1130:A:N7	53:CA:1146:A:C6	2.83	0.47
53:CA:1141:C:O2'	53:CA:1142:G:H8	1.97	0.47
53:CA:1225:A:H2'	53:CA:1225:A:N3	2.29	0.47
53:CA:1240:U:OP1	54:CG:115:MET:HB2	2.15	0.47
53:CA:1272:G:H5'	14:CN:33:VAL:HB	1.97	0.47
53:CA:1383:C:O2'	53:CA:1384:C:H5'	2.14	0.47
53:CA:1458:G:C4'	20:CT:22:SER:HB2	2.41	0.47
3:CC:93:ILE:O	3:CC:93:ILE:CG1	2.63	0.47
3:CC:129:PHE:O	3:CC:130:ARG:C	2.57	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:18:LEU:HB2	4:CD:20:LEU:HG	1.97	0.47
4:CD:23:GLY:CA	4:CD:160:LEU:HD12	2.45	0.47
5:CE:130:THR:C	5:CE:135:VAL:HG21	2.39	0.47
8:CH:38:VAL:HA	8:CH:41:GLU:HG2	1.96	0.47
9:CI:5:TYR:O	9:CI:19:PHE:HA	2.15	0.47
9:CI:126:PHE:O	9:CI:126:PHE:CG	2.67	0.47
10:CJ:81:GLU:O	10:CJ:86:ALA:CB	2.62	0.47
11:CK:35:ASP:C	11:CK:37:GLN:H	2.22	0.47
11:CK:70:ALA:N	11:CK:73:VAL:HG13	2.30	0.47
11:CK:87:GLY:H	11:CK:113:THR:CG2	2.27	0.47
12:CL:48:LEU:N	12:CL:48:LEU:CD2	2.69	0.47
12:CL:79:ILE:CD1	12:CL:96:THR:HG21	2.32	0.47
12:CL:109:ARG:NH2	12:CL:116:TYR:CE2	2.83	0.47
55:CM:52:ILE:HG13	55:CM:56:ARG:HH21	1.80	0.47
55:CM:85:TYR:CE2	55:CM:96:VAL:HG13	2.49	0.47
56:CP:39:PHE:CE2	56:CP:41:PRO:HG3	2.50	0.47
17:CQ:30:HIS:CG	17:CQ:31:PRO:HD2	2.49	0.47
18:CR:32:ILE:HD12	18:CR:32:ILE:C	2.39	0.47
19:CS:35:ARG:NH2	19:CS:51:HIS:HD2	2.10	0.47
19:CS:52:ASN:C	19:CS:54:ARG:H	2.22	0.47
20:CT:3:ILE:O	20:CT:3:ILE:HG22	2.14	0.47
22:DA:62:U:H2'	22:DA:62:U:O2	2.14	0.47
22:DA:63:A:N6	22:DA:91:A:N6	2.63	0.47
22:DA:87:U:O2'	22:DA:88:G:P	2.73	0.47
22:DA:347:A:O2'	22:DA:348:A:H5'	2.15	0.47
22:DA:413:C:H4'	22:DA:1880:U:H4'	1.97	0.47
22:DA:425:G:C2	22:DA:426:C:C4	3.03	0.47
22:DA:468:G:H4'	26:DE:57:LYS:CG	2.44	0.47
22:DA:489:G:C6	22:DA:491:G:C5	3.03	0.47
22:DA:527:C:O2'	22:DA:528:A:P	2.72	0.47
22:DA:533:G:OP1	38:DQ:23:TYR:HB3	2.15	0.47
22:DA:567:U:O4	22:DA:568:U:C4	2.67	0.47
22:DA:579:G:N2	22:DA:1262:A:C4	2.83	0.47
22:DA:621:A:O2'	22:DA:622:G:O4'	2.31	0.47
22:DA:675:A:C6	22:DA:676:A:C6	3.02	0.47
22:DA:783:A:H2	22:DA:1778:U:C4'	2.19	0.47
22:DA:851:C:O4'	47:DZ:46:MET:HG2	2.14	0.47
22:DA:947:A:H2'	22:DA:948:C:C6	2.49	0.47
22:DA:1045:C:H1'	22:DA:1047:G:C2	2.50	0.47
22:DA:1079:C:N4	22:DA:1088:A:C2	2.82	0.47
22:DA:1092:C:H2'	22:DA:1093:G:H5'	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1220:G:H2'	22:DA:1221:C:C6	2.50	0.47
22:DA:1223:G:N2	22:DA:1225:G:H3'	2.30	0.47
22:DA:1286:A:C5	22:DA:1289:C:C4	3.02	0.47
22:DA:1340:U:O2'	22:DA:1341:G:P	2.73	0.47
22:DA:1426:G:C5'	22:DA:1427:A:OP2	2.63	0.47
22:DA:1451:C:H4'	22:DA:1452:G:O5'	2.15	0.47
22:DA:1456:G:O2'	22:DA:1457:U:C5'	2.63	0.47
22:DA:1506:U:O5'	22:DA:1506:U:H6	1.96	0.47
22:DA:1539:U:O2'	22:DA:1540:G:C8	2.65	0.47
22:DA:1542:U:O2'	22:DA:1543:G:H5'	2.14	0.47
22:DA:1586:A:H2'	22:DA:1587:G:C8	2.44	0.47
22:DA:1608:A:C5	22:DA:1611:C:C4	3.02	0.47
22:DA:1626:A:O2'	22:DA:1627:G:OP2	2.30	0.47
22:DA:1627:G:C2	22:DA:1628:G:N7	2.82	0.47
22:DA:1771:C:H42	22:DA:1980:G:H1	1.63	0.47
22:DA:1866:A:C4	22:DA:1876:A:N6	2.83	0.47
22:DA:2217:G:C2	22:DA:2218:G:C4	3.03	0.47
22:DA:2266:A:O2'	22:DA:2267:A:OP2	2.26	0.47
22:DA:2286:G:N7	49:D1:33:LEU:CD2	2.78	0.47
22:DA:2564:A:OP1	22:DA:2648:G:H4'	2.15	0.47
22:DA:2571:U:C4	22:DA:2574:G:C8	3.02	0.47
22:DA:2666:C:C2'	22:DA:2667:C:O5'	2.62	0.47
22:DA:2889:C:C4	22:DA:2890:G:C6	3.02	0.47
57:DB:66:A:OP2	57:DB:108:A:N6	2.47	0.47
57:DB:68:C:O2'	57:DB:69:G:O5'	2.33	0.47
24:DC:93:VAL:CG1	24:DC:94:LEU:N	2.78	0.47
24:DC:93:VAL:CG1	24:DC:101:ARG:N	2.72	0.47
25:DD:39:ASP:CG	25:DD:40:LEU:N	2.73	0.47
25:DD:114:LYS:CD	25:DD:116:LYS:HZ1	2.24	0.47
25:DD:159:LYS:O	25:DD:161:MET:HG2	2.15	0.47
26:DE:26:ALA:CB	33:DL:9:ALA:HB2	2.45	0.47
26:DE:90:GLN:HG3	26:DE:92:HIS:NE2	2.29	0.47
58:DF:48:LEU:HD23	58:DF:48:LEU:N	2.22	0.47
58:DF:60:SER:O	58:DF:62:GLN:N	2.46	0.47
28:DG:104:LEU:H	28:DG:112:VAL:HG23	1.80	0.47
29:DH:82:SER:O	29:DH:83:LYS:HB3	2.14	0.47
31:DJ:65:THR:O	31:DJ:68:LYS:NZ	2.43	0.47
31:DJ:73:VAL:CG2	31:DJ:74:TYR:H	2.11	0.47
32:DK:87:LEU:HD23	32:DK:87:LEU:N	2.29	0.47
32:DK:121:GLU:O	32:DK:122:VAL:C	2.57	0.47
35:DN:12:ARG:HB3	35:DN:16:HIS:ND1	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:2:TYR:CD2	39:DR:42:ALA:HB2	2.50	0.47
39:DR:80:ARG:HB3	39:DR:81:LYS:CD	2.45	0.47
41:DT:28:ASN:O	41:DT:29:THR:HG22	2.14	0.47
41:DT:63:VAL:HG21	41:DT:80:TRP:CE2	2.50	0.47
42:DU:81:ARG:O	42:DU:82:VAL:HG13	2.14	0.47
43:DV:26:PHE:HD2	43:DV:42:LEU:HB2	1.79	0.47
44:DW:43:LYS:HD3	44:DW:43:LYS:HA	1.58	0.47
44:DW:49:ASN:HD21	44:DW:80:SER:C	2.22	0.47
45:DX:57:VAL:HG13	45:DX:58:ILE:N	2.28	0.47
45:DX:71:ARG:C	45:DX:73:ARG:H	2.22	0.47
51:D3:28:LEU:O	51:D3:29:ARG:HB3	2.14	0.47
1:AA:157:U:O2'	1:AA:158:G:H5'	2.15	0.47
1:AA:191:G:C4	1:AA:192:A:C8	3.03	0.47
1:AA:322:C:H41	1:AA:328:C:H6	1.62	0.47
1:AA:423:G:O2'	1:AA:424:G:O4'	2.32	0.47
1:AA:653:U:O2'	1:AA:654:G:H5'	2.15	0.47
1:AA:683:G:O2'	1:AA:684:U:H5'	2.15	0.47
1:AA:842:U:H2'	1:AA:843:U:O3'	2.14	0.47
1:AA:892:A:C2'	1:AA:893:C:H5'	2.45	0.47
1:AA:935:A:H61	7:AG:2:ARG:HB2	1.79	0.47
1:AA:991:U:C4'	1:AA:992:U:OP1	2.63	0.47
1:AA:1480:A:C6	1:AA:1481:U:C4	3.02	0.47
4:AD:80:ARG:NH2	4:AD:81:LEU:HD21	2.30	0.47
4:AD:145:ARG:C	4:AD:147:LYS:N	2.70	0.47
5:AE:81:GLN:HG2	5:AE:149:PRO:HB3	1.96	0.47
5:AE:132:PRO:C	5:AE:134:ASN:N	2.72	0.47
5:AE:152:VAL:HA	5:AE:155:LYS:HZ1	1.79	0.47
17:AQ:40:THR:HG22	17:AQ:41:THR:N	2.29	0.47
17:AQ:44:HIS:HD2	17:AQ:69:THR:HG22	1.79	0.47
21:AU:18:PHE:C	21:AU:19:LYS:HE2	2.39	0.47
21:AU:24:LYS:CG	21:AU:25:ALA:H	2.27	0.47
22:BA:592:A:C2	51:B3:3:ILE:HD11	2.50	0.47
22:BA:693:A:O2'	22:BA:694:U:H5'	2.15	0.47
22:BA:1166:G:O2'	22:BA:1167:C:H5'	2.14	0.47
22:BA:1305:C:O2	22:BA:1305:C:H2'	2.15	0.47
22:BA:1456:G:H2'	22:BA:1457:U:H6	1.80	0.47
22:BA:1589:U:C2	22:BA:1590:A:C8	3.03	0.47
22:BA:1654:A:H2'	22:BA:1655:A:H8	1.80	0.47
22:BA:1817:G:O2'	22:BA:1818:U:H5'	2.15	0.47
22:BA:1824:G:C6	22:BA:1825:U:C4	3.02	0.47
22:BA:2063:C:H2'	22:BA:2064:C:H5'	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2714:G:OP1	62:BA:3541:HOH:O	2.20	0.47
22:BA:2897:U:H2'	22:BA:2898:U:C6	2.48	0.47
24:BC:109:LEU:HD23	24:BC:110:LYS:H	1.79	0.47
24:BC:159:THR:H	24:BC:194:VAL:CG1	2.28	0.47
25:BD:17:GLU:C	25:BD:19:GLY:H	2.22	0.47
25:BD:114:LYS:C	25:BD:114:LYS:HD2	2.40	0.47
28:BG:18:ILE:O	28:BG:18:ILE:HG23	2.14	0.47
29:BH:14:SER:C	29:BH:16:GLY:H	2.23	0.47
29:BH:66:ASN:C	29:BH:68:ARG:N	2.72	0.47
29:BH:119:ASN:C	29:BH:121:VAL:H	2.22	0.47
32:BK:51:LYS:HG3	32:BK:95:ILE:CD1	2.37	0.47
33:BL:68:SER:O	33:BL:70:LYS:N	2.42	0.47
40:BS:74:ILE:CD1	40:BS:105:VAL:HG22	2.44	0.47
43:BV:88:HIS:CG	43:BV:89:ILE:N	2.82	0.47
52:B4:24:ARG:NH2	52:B4:24:ARG:HG2	2.30	0.47
53:CA:119:A:C5'	53:CA:120:A:O5'	2.63	0.47
53:CA:239:U:C6	53:CA:239:U:C5'	2.81	0.47
53:CA:276:G:O2'	53:CA:277:C:P	2.73	0.47
53:CA:725:G:C6	53:CA:726:C:C4	3.02	0.47
53:CA:795:C:H1'	53:CA:1506:U:C5	2.49	0.47
53:CA:932:C:O3'	54:CG:3:ARG:HD3	2.14	0.47
53:CA:1056:U:H5'	3:CC:162:ALA:HB3	1.96	0.47
53:CA:1303:C:N4	53:CA:1304:G:C2	2.83	0.47
53:CA:1328:C:H2'	53:CA:1329:A:C8	2.50	0.47
53:CA:1458:G:O3'	20:CT:22:SER:CA	2.53	0.47
2:CB:9:LEU:C	2:CB:11:ALA:N	2.72	0.47
4:CD:84:ASN:HD22	4:CD:84:ASN:C	2.23	0.47
6:CF:6:ILE:H	6:CF:6:ILE:CD1	2.26	0.47
15:CO:87:ARG:HA	15:CO:87:ARG:HD2	1.68	0.47
22:DA:243:U:O2'	22:DA:244:A:C5'	2.63	0.47
22:DA:244:A:O2'	22:DA:245:G:O4'	2.32	0.47
22:DA:298:G:OP1	42:DU:83:GLY:HA2	2.15	0.47
22:DA:301:G:C8	22:DA:334:C:C2	3.02	0.47
22:DA:310:A:O2'	22:DA:311:A:C8	2.43	0.47
22:DA:371:A:C4	22:DA:373:U:O4	2.68	0.47
22:DA:397:U:OP1	45:DX:30:PRO:CA	2.56	0.47
22:DA:480:A:H2'	22:DA:480:A:N3	2.27	0.47
22:DA:929:U:H4'	47:DZ:37:ARG:NH1	2.29	0.47
22:DA:968:C:O2'	22:DA:969:G:H5'	2.15	0.47
22:DA:991:C:O5'	22:DA:991:C:C6	2.68	0.47
22:DA:1070:A:C5	22:DA:1097:U:H4'	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1312:U:C2	22:DA:1603:A:C6	3.03	0.47
22:DA:1373:A:H4'	22:DA:2212:A:H1'	1.96	0.47
22:DA:1378:A:C8	22:DA:1380:G:C5	3.02	0.47
22:DA:1529:G:H2'	22:DA:1530:G:O4'	2.15	0.47
22:DA:1716:U:C4	22:DA:1745:A:N6	2.83	0.47
22:DA:1808:A:H3'	22:DA:1809:A:C8	2.50	0.47
22:DA:1837:C:H2'	22:DA:1899:A:H61	1.80	0.47
22:DA:1857:G:H1'	22:DA:1884:G:N2	2.13	0.47
22:DA:2097:A:C5	22:DA:2098:U:C4	3.03	0.47
22:DA:2517:C:O2'	22:DA:2518:A:C3'	2.53	0.47
25:DD:193:VAL:CB	25:DD:194:PRO:HD2	2.44	0.47
58:DF:129:MET:HE2	58:DF:174:PHE:CE1	2.49	0.47
28:DG:26:LYS:HD3	28:DG:27:GLY:N	2.30	0.47
28:DG:56:GLY:C	28:DG:57:TYR:HD2	2.23	0.47
28:DG:152:ARG:CD	28:DG:153:PRO:HD2	2.44	0.47
30:DI:37:PHE:CE1	30:DI:56:VAL:HG21	2.50	0.47
31:DJ:6:ALA:HB3	31:DJ:45:THR:CB	2.38	0.47
31:DJ:106:LYS:HE2	31:DJ:106:LYS:HA	1.96	0.47
32:DK:10:VAL:HG13	32:DK:12:ASP:H	1.80	0.47
33:DL:18:ARG:O	33:DL:19:LEU:HB3	2.15	0.47
33:DL:58:TYR:O	51:D3:12:ARG:CZ	2.63	0.47
34:DM:108:VAL:HA	34:DM:109:PRO:HD3	1.76	0.47
41:DT:68:LYS:HG3	62:DT:101:HOH:O	2.13	0.47
47:DZ:4:ILE:HG21	47:DZ:56:VAL:HG13	1.96	0.47
1:AA:628:G:C2	1:AA:629:A:C4	3.03	0.47
1:AA:1054:C:O2	1:AA:1054:C:O4'	2.32	0.47
1:AA:1113:C:H2'	1:AA:1114:C:C6	2.49	0.47
2:AB:27:LYS:N	2:AB:28:PRO:CD	2.77	0.47
2:AB:99:MET:O	2:AB:99:MET:HG3	2.15	0.47
2:AB:115:ASP:O	2:AB:119:GLN:HB3	2.14	0.47
3:AC:148:ILE:HA	3:AC:200:TRP:O	2.14	0.47
4:AD:71:PHE:CZ	4:AD:199:ILE:HD11	2.50	0.47
4:AD:147:LYS:N	4:AD:147:LYS:CD	2.78	0.47
4:AD:172:VAL:O	4:AD:173:ASP:HB2	2.14	0.47
5:AE:29:ILE:HD12	5:AE:30:PHE:H	1.79	0.47
6:AF:11:HIS:CD2	6:AF:13:ASP:HB2	2.49	0.47
9:AI:12:LYS:O	9:AI:12:LYS:HG2	2.15	0.47
18:AR:25:ILE:HG21	18:AR:66:LEU:HB3	1.97	0.47
20:AT:9:ARG:HD2	20:AT:12:GLN:NE2	2.30	0.47
20:AT:32:LYS:O	20:AT:35:TYR:HD2	1.98	0.47
22:BA:79:C:O2'	22:BA:346:A:H1'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:288:U:O2'	22:BA:289:G:H5'	2.13	0.47
22:BA:830:G:H4'	22:BA:831:G:OP2	2.15	0.47
22:BA:892:A:H2'	22:BA:893:C:C6	2.50	0.47
22:BA:1167:C:C2'	22:BA:1168:G:O5'	2.63	0.47
22:BA:1354:A:H2'	22:BA:1355:G:O4'	2.15	0.47
22:BA:1471:G:C4	22:BA:1472:C:C6	3.03	0.47
22:BA:1471:G:O2'	22:BA:1472:C:H5'	2.15	0.47
22:BA:1654:A:O3'	25:BD:118:PHE:CE2	2.68	0.47
22:BA:2136:G:C2	22:BA:2137:U:O4	2.68	0.47
22:BA:2555:U:H5	22:BA:2556:C:C5	2.32	0.47
22:BA:2714:G:H2'	22:BA:2715:C:H6	1.79	0.47
26:BE:141:MET:O	26:BE:142:ALA:CB	2.63	0.47
27:BF:3:LEU:HD12	27:BF:172:PHE:HE2	1.77	0.47
29:BH:25:TYR:CE2	29:BH:30:LEU:HD21	2.49	0.47
29:BH:50:ARG:O	29:BH:54:LEU:HB2	2.15	0.47
30:BI:18:ASN:ND2	30:BI:38:CYS:HB3	2.29	0.47
31:BJ:80:HIS:O	31:BJ:81:ILE:C	2.57	0.47
34:BM:32:GLY:HA3	34:BM:131:VAL:HG23	1.97	0.47
36:BO:66:GLY:C	36:BO:102:ARG:NH2	2.73	0.47
36:BO:106:LEU:HD12	36:BO:106:LEU:C	2.40	0.47
38:BQ:38:VAL:O	38:BQ:39:ILE:C	2.56	0.47
39:BR:25:LEU:O	39:BR:66:HIS:CE1	2.64	0.47
40:BS:18:ARG:CG	40:BS:76:VAL:HG13	2.32	0.47
41:BT:9:LYS:O	41:BT:9:LYS:HG3	2.13	0.47
41:BT:44:LYS:O	41:BT:48:GLN:HG2	2.15	0.47
41:BT:70:HIS:HB2	41:BT:73:ARG:C	2.40	0.47
43:BV:80:HIS:HD2	43:BV:83:LYS:CA	2.27	0.47
45:BX:51:SER:O	45:BX:52:ALA:C	2.56	0.47
45:BX:58:ILE:CD1	45:BX:66:VAL:HG11	2.44	0.47
48:B0:27:LEU:H	48:B0:27:LEU:CD2	2.28	0.47
53:CA:39:G:C4	53:CA:40:C:C5	3.03	0.47
53:CA:325:A:N6	53:CA:326:G:C6	2.82	0.47
53:CA:378:G:C2	53:CA:386:C:O2	2.68	0.47
53:CA:695:A:H61	53:CA:797:C:H1'	1.80	0.47
53:CA:914:A:C4	53:CA:915:A:C8	3.03	0.47
53:CA:998:C:H2'	53:CA:999:C:C6	2.45	0.47
53:CA:1046:A:H2'	53:CA:1047:G:H8	1.80	0.47
53:CA:1304:G:C1'	53:CA:1333:A:H61	2.23	0.47
53:CA:1310:G:C6	53:CA:1311:A:C6	3.03	0.47
2:CB:58:LYS:O	2:CB:62:ARG:HG3	2.14	0.47
2:CB:119:GLN:HG2	2:CB:124:THR:CG2	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:CC:91:ALA:CB	3:CC:98:ALA:HB3	2.40	0.47
4:CD:54:LEU:HA	4:CD:202:LEU:HD11	1.97	0.47
8:CH:11:THR:CG2	8:CH:14:ARG:HH22	2.27	0.47
9:CI:71:ILE:HD12	9:CI:72:SER:N	2.26	0.47
10:CJ:38:GLY:O	10:CJ:40:ILE:CD1	2.63	0.47
14:CN:8:ARG:NH1	14:CN:12:ARG:HH22	2.13	0.47
56:CP:16:PHE:CZ	56:CP:38:PHE:HD1	2.33	0.47
22:DA:56:A:C2	22:DA:115:C:C2	3.03	0.47
22:DA:61:C:C4	22:DA:94:A:C2	3.03	0.47
22:DA:234:U:H2'	22:DA:235:U:C6	2.50	0.47
22:DA:287:G:C2	22:DA:354:A:C2	3.02	0.47
22:DA:370:G:N1	22:DA:424:G:C6	2.81	0.47
22:DA:479:A:C1'	22:DA:480:A:H5''	2.43	0.47
22:DA:553:G:O2'	22:DA:554:U:H5'	2.14	0.47
22:DA:602:A:H4'	22:DA:605:G:P	2.55	0.47
22:DA:715:A:C6	22:DA:716:A:C6	3.02	0.47
22:DA:845:A:C2	22:DA:847:U:C6	3.03	0.47
22:DA:1179:G:H2'	22:DA:1180:U:C6	2.49	0.47
22:DA:1327:A:N3	22:DA:1328:A:H1'	2.30	0.47
22:DA:1753:G:C2	22:DA:1756:G:C2	3.02	0.47
22:DA:1991:U:H5''	22:DA:1991:U:H6	1.80	0.47
22:DA:2015:A:H8	22:DA:2016:U:C6	2.33	0.47
22:DA:2144:G:O2'	22:DA:2145:C:C5'	2.63	0.47
22:DA:2314:A:C2	22:DA:2315:G:C4	3.03	0.47
22:DA:2330:G:H21	44:DW:38:ARG:HA	1.80	0.47
22:DA:2431:U:N3	22:DA:2434:A:OP2	2.45	0.47
22:DA:2443:C:H2'	22:DA:2444:G:O4'	2.15	0.47
22:DA:2687:U:C2'	22:DA:2688:G:H5'	2.45	0.47
22:DA:2756:U:H4'	22:DA:2757:A:C5'	2.45	0.47
24:DC:163:ILE:HG23	24:DC:171:VAL:HG13	1.97	0.47
24:DC:203:VAL:O	24:DC:204:LEU:HB2	2.15	0.47
26:DE:59:PRO:HB2	26:DE:67:ARG:HH22	1.75	0.47
58:DF:169:LEU:N	58:DF:169:LEU:CD1	2.78	0.47
28:DG:67:ALA:O	28:DG:71:LEU:HB2	2.14	0.47
28:DG:94:ARG:HH21	28:DG:111:PRO:HB3	1.80	0.47
34:DM:53:MET:HB2	34:DM:120:ALA:CB	2.44	0.47
35:DN:31:HIS:O	35:DN:33:ILE:HG13	2.15	0.47
35:DN:96:ARG:HB3	35:DN:114:GLU:OE1	2.15	0.47
36:DO:63:LYS:HD3	36:DO:63:LYS:O	2.15	0.47
37:DP:28:LYS:HZ2	37:DP:28:LYS:CB	2.20	0.47
49:D1:5:ARG:HH21	49:D1:23:THR:HB	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D1:24:LYS:HE2	49:D1:52:LYS:HZ1	1.80	0.47
1:AA:275:G:C2	1:AA:276:G:C8	3.02	0.47
1:AA:518:C:OP2	1:AA:530:G:H1'	2.15	0.47
1:AA:545:C:C2'	1:AA:545:C:O2	2.63	0.47
1:AA:580:C:O2'	1:AA:581:G:H5'	2.15	0.47
1:AA:1111:A:C2	3:AC:176:THR:HG23	2.50	0.47
1:AA:1211:U:H1'	1:AA:1213:A:C2	2.50	0.47
1:AA:1303:C:H2'	1:AA:1304:G:H8	1.73	0.47
1:AA:1333:A:H2'	1:AA:1334:G:H5'	1.97	0.47
2:AB:53:LEU:CD2	2:AB:53:LEU:N	2.78	0.47
2:AB:106:VAL:O	2:AB:110:ILE:HD13	2.15	0.47
2:AB:110:ILE:CG1	2:AB:147:LEU:HD13	2.42	0.47
2:AB:148:GLY:C	2:AB:150:ILE:H	2.23	0.47
2:AB:219:THR:HG23	2:AB:220:VAL:H	1.80	0.47
3:AC:139:ASN:C	3:AC:139:ASN:HD22	2.21	0.47
6:AF:1:MET:HE2	6:AF:67:PRO:HB3	1.97	0.47
6:AF:89:VAL:O	6:AF:89:VAL:HG13	2.13	0.47
7:AG:53:SER:C	7:AG:55:LYS:N	2.68	0.47
8:AH:38:VAL:HG13	8:AH:111:THR:HG22	1.97	0.47
9:AI:8:THR:O	9:AI:81:GLY:CA	2.63	0.47
10:AJ:19:ASP:CA	10:AJ:22:THR:HB	2.41	0.47
10:AJ:20:GLN:HA	10:AJ:20:GLN:HE21	1.78	0.47
11:AK:15:VAL:CG1	11:AK:78:ILE:CG2	2.93	0.47
11:AK:125:LYS:C	21:AU:33:ARG:HH22	2.21	0.47
17:AQ:12:VAL:CG1	17:AQ:16:MET:HE1	2.34	0.47
22:BA:470:A:H61	41:BT:72:GLN:HE22	1.63	0.47
22:BA:528:A:H5''	22:BA:528:A:C8	2.29	0.47
22:BA:747:U:O2'	40:BS:88:ARG:NH2	2.48	0.47
22:BA:954:G:OP2	34:BM:16:ARG:NH2	2.48	0.47
22:BA:971:G:H2'	22:BA:972:A:H5'	1.97	0.47
22:BA:1107:G:C4	22:BA:1108:U:C5	3.03	0.47
22:BA:1112:G:O2'	22:BA:1113:U:H5'	2.15	0.47
22:BA:1136:G:N2	22:BA:1137:G:C4	2.83	0.47
22:BA:1737:G:C6	22:BA:1738:G:C2	3.04	0.47
22:BA:2517:C:C6	22:BA:2542:A:N7	2.83	0.47
22:BA:2756:U:H4'	22:BA:2757:A:O5'	2.15	0.47
27:BF:39:VAL:HG13	27:BF:40:GLY:N	2.29	0.47
27:BF:52:ALA:O	27:BF:55:ASP:HB2	2.15	0.47
27:BF:173:ASP:O	27:BF:174:PHE:C	2.58	0.47
30:BI:79:LEU:HD11	30:BI:132:ALA:HA	1.96	0.47
33:BL:73:ILE:HA	33:BL:105:ILE:HD13	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:80:SER:HB3	33:BL:115:GLU:OE1	2.15	0.47
34:BM:73:ILE:HB	34:BM:91:TYR:O	2.15	0.47
36:BO:31:THR:HG23	36:BO:33:ARG:H	1.80	0.47
36:BO:94:ARG:H	36:BO:94:ARG:HG3	1.45	0.47
38:BQ:110:GLU:HA	38:BQ:110:GLU:OE2	2.15	0.47
39:BR:54:VAL:O	39:BR:54:VAL:HG23	2.14	0.47
41:BT:39:THR:HG21	41:BT:41:ALA:HB3	1.93	0.47
44:BW:11:ASN:C	44:BW:12:GLY:O	2.57	0.47
44:BW:14:ASP:OD2	44:BW:16:GLU:OE1	2.33	0.47
45:BX:52:ALA:O	45:BX:53:LYS:HB3	2.15	0.47
46:BY:47:ARG:HH21	46:BY:47:ARG:HG3	1.80	0.47
47:BZ:30:ARG:HE	47:BZ:30:ARG:HB2	1.53	0.47
49:B1:10:LEU:O	49:B1:19:PHE:HB2	2.15	0.47
49:B1:27:ARG:C	49:B1:29:LYS:H	2.23	0.47
52:B4:33:HIS:N	52:B4:33:HIS:ND1	2.63	0.47
53:CA:335:C:O2	53:CA:1433:A:C2	2.60	0.47
53:CA:414:A:O2'	53:CA:415:A:C4'	2.62	0.47
53:CA:568:G:O2'	53:CA:574:A:N1	2.45	0.47
53:CA:760:G:H2'	53:CA:761:G:H5'	1.96	0.47
53:CA:1204:A:H2'	53:CA:1205:U:C6	2.50	0.47
53:CA:1332:A:C2'	53:CA:1333:A:H5'	2.45	0.47
3:CC:148:ILE:HD12	3:CC:149:LYS:H	1.80	0.47
4:CD:22:SER:OG	4:CD:23:GLY:N	2.48	0.47
4:CD:26:ALA:O	4:CD:28:ASP:O	2.33	0.47
4:CD:66:VAL:CG1	4:CD:70:GLN:HB3	2.45	0.47
9:CI:30:ASN:C	9:CI:32:ARG:H	2.23	0.47
9:CI:85:ALA:HA	9:CI:88:GLU:OE1	2.14	0.47
9:CI:102:PHE:C	9:CI:104:THR:H	2.23	0.47
10:CJ:65:TYR:CB	14:CN:95:LEU:HD11	2.46	0.47
55:CM:21:ILE:HB	55:CM:24:VAL:CG2	2.45	0.47
15:CO:63:ARG:HH22	22:DA:715:A:H5''	1.80	0.47
56:CP:20:VAL:HG22	56:CP:21:VAL:N	2.30	0.47
17:CQ:19:SER:HB2	17:CQ:45:VAL:O	2.14	0.47
19:CS:32:THR:HG21	19:CS:48:ILE:CG2	2.45	0.47
22:DA:2:G:H2'	22:DA:3:U:O4'	2.15	0.47
22:DA:52:A:C5	22:DA:118:A:C2	3.03	0.47
22:DA:100:U:H3'	22:DA:100:U:P	2.54	0.47
22:DA:153:U:C2'	22:DA:154:U:H5'	2.45	0.47
22:DA:227:A:H4'	22:DA:228:C:OP1	2.14	0.47
22:DA:284:U:H2'	22:DA:285:G:C8	2.48	0.47
22:DA:352:A:H2'	22:DA:353:C:C4'	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:919:U:C2	22:DA:920:A:C8	3.03	0.47
22:DA:1738:G:O2'	22:DA:1739:A:P	2.73	0.47
22:DA:1895:C:C6	22:DA:1895:C:C3'	2.98	0.47
22:DA:2286:G:C8	49:D1:33:LEU:HD21	2.50	0.47
22:DA:2331:G:O2'	44:DW:40:ARG:CB	2.62	0.47
22:DA:2394:C:OP1	33:DL:63:LYS:HG2	2.15	0.47
22:DA:2449:U:H3'	62:DA:3671:HOH:O	2.15	0.47
22:DA:2531:A:H5''	28:DG:156:TYR:OH	2.15	0.47
22:DA:2656:U:O2'	22:DA:2657:A:H8	1.98	0.47
57:DB:24:G:H1'	57:DB:27:C:H41	1.70	0.47
24:DC:30:ALA:C	24:DC:32:LEU:H	2.23	0.47
24:DC:125:PRO:HA	24:DC:191:LEU:HB2	1.97	0.47
24:DC:128:THR:HG22	24:DC:188:ARG:HG2	1.97	0.47
26:DE:24:ASN:O	26:DE:28:VAL:HG13	2.15	0.47
26:DE:146:VAL:O	26:DE:167:VAL:HA	2.14	0.47
58:DF:31:GLU:O	58:DF:95:MET:HE2	2.15	0.47
58:DF:103:ILE:HA	58:DF:107:VAL:CG2	2.35	0.47
29:DH:53:GLU:C	29:DH:55:GLU:N	2.71	0.47
29:DH:83:LYS:HG3	29:DH:149:GLU:CB	2.45	0.47
32:DK:119:ALA:O	32:DK:120:PRO:C	2.57	0.47
35:DN:83:LEU:CD1	35:DN:86:ARG:HH21	2.28	0.47
36:DO:30:ARG:HA	36:DO:35:ILE:CD1	2.44	0.47
42:DU:34:ILE:HG12	42:DU:63:ALA:HA	1.97	0.47
43:DV:1:MET:HE2	43:DV:1:MET:HA	1.97	0.47
44:DW:43:LYS:CG	44:DW:79:ILE:HD11	2.45	0.47
49:D1:37:LYS:O	49:D1:48:TYR:HD2	1.99	0.47
1:AA:344:A:O2'	37:BP:36:LYS:CE	2.63	0.46
1:AA:1232:U:C4	1:AA:1233:G:N7	2.84	0.46
1:AA:1370:G:C2	1:AA:1371:G:C8	3.03	0.46
1:AA:1453:G:HO2'	1:AA:1454:G:P	2.37	0.46
2:AB:14:HIS:HB2	2:AB:208:ALA:HB2	1.96	0.46
2:AB:40:ILE:O	2:AB:41:ASN:HB2	2.15	0.46
2:AB:76:SER:O	2:AB:79:VAL:HB	2.15	0.46
3:AC:113:LYS:HD3	3:AC:184:ASN:ND2	2.30	0.46
4:AD:11:SER:CA	4:AD:18:LEU:HD12	2.38	0.46
5:AE:79:THR:HB	5:AE:121:ASN:CG	2.40	0.46
7:AG:138:GLU:OE1	7:AG:138:GLU:HA	2.16	0.46
8:AH:20:ASN:HA	8:AH:64:TYR:CE2	2.50	0.46
14:AN:63:CYS:O	14:AN:64:ARG:C	2.57	0.46
17:AQ:48:GLU:OE1	17:AQ:49:ASN:N	2.46	0.46
17:AQ:51:GLU:N	17:AQ:51:GLU:OE1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AQ:67:SER:OG	17:AQ:70:LYS:HB3	2.14	0.46
20:AT:3:ILE:HA	20:AT:7:LYS:NZ	2.29	0.46
22:BA:414:C:H1'	22:BA:1864:U:O2'	2.14	0.46
22:BA:709:U:H2'	22:BA:710:U:H6	1.79	0.46
22:BA:779:U:OP1	24:BC:48:ILE:HG13	2.14	0.46
22:BA:790:U:O2'	22:BA:791:C:P	2.73	0.46
22:BA:901:C:H2'	22:BA:902:C:C6	2.50	0.46
22:BA:1301:A:C4	22:BA:1303:G:N7	2.83	0.46
22:BA:1510:G:O2'	22:BA:1511:G:O4'	2.26	0.46
22:BA:1731:G:C4	22:BA:1733:G:C8	3.03	0.46
22:BA:1735:A:O2'	22:BA:1736:U:H5'	2.15	0.46
22:BA:2080:A:H5'	45:BX:18:SER:CB	2.46	0.46
22:BA:2287:A:C2	22:BA:2289:G:C5	3.03	0.46
22:BA:2394:C:P	51:B3:29:ARG:HH21	2.38	0.46
22:BA:2402:U:C2'	22:BA:2403:C:OP2	2.56	0.46
22:BA:2808:G:C2	22:BA:2891:U:C5	3.03	0.46
24:BC:80:LEU:HD11	24:BC:109:LEU:CB	2.45	0.46
24:BC:108:GLY:O	24:BC:109:LEU:C	2.58	0.46
25:BD:13:ARG:HD2	37:BP:55:HIS:CE1	2.50	0.46
25:BD:42:ASN:O	25:BD:43:ASP:O	2.32	0.46
27:BF:24:VAL:HG22	27:BF:25:MET:N	2.30	0.46
27:BF:64:PRO:HA	27:BF:88:VAL:HG23	1.97	0.46
27:BF:166:ARG:O	27:BF:167:ALA:C	2.58	0.46
32:BK:15:GLY:O	32:BK:46:ALA:HA	2.15	0.46
35:BN:55:ALA:HB1	35:BN:80:PHE:HA	1.96	0.46
38:BQ:63:ARG:HH22	38:BQ:96:ASP:N	2.13	0.46
42:BU:78:LYS:HG2	42:BU:79:ALA:H	1.80	0.46
42:BU:80:ASP:O	42:BU:81:ARG:CB	2.62	0.46
48:B0:38:LEU:O	48:B0:39:ARG:C	2.57	0.46
53:CA:137:U:H1'	53:CA:227:G:N2	2.30	0.46
53:CA:366:A:H1'	53:CA:395:C:O2	2.16	0.46
53:CA:948:C:H5''	55:CM:104:ASN:CB	2.40	0.46
53:CA:954:G:C2	53:CA:1228:C:N3	2.82	0.46
53:CA:986:U:O4	53:CA:987:G:O6	2.32	0.46
53:CA:988:G:O2'	53:CA:989:U:C5'	2.41	0.46
53:CA:1004:A:H2'	53:CA:1005:A:H8	1.80	0.46
53:CA:1076:U:C2	53:CA:1082:A:C2	3.03	0.46
53:CA:1129:C:C4	53:CA:1139:G:C5	3.04	0.46
53:CA:1207:G:H2'	53:CA:1208:C:C6	2.51	0.46
53:CA:1494:G:O2'	53:CA:1495:U:H5'	2.16	0.46
4:CD:50:TYR:O	4:CD:53:GLN:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:CF:44:ARG:N	6:CF:58:HIS:ND1	2.60	0.46
54:CG:91:ARG:HG2	54:CG:92:PRO:HD3	1.90	0.46
8:CH:38:VAL:HA	8:CH:41:GLU:CG	2.45	0.46
12:CL:89:LEU:HA	12:CL:90:PRO:HD2	1.72	0.46
18:CR:54:LEU:O	18:CR:55:ALA:C	2.57	0.46
19:CS:50:VAL:HG21	19:CS:74:ALA:HB2	1.96	0.46
22:DA:119:A:C4'	22:DA:120:U:OP1	2.63	0.46
22:DA:136:G:H8	22:DA:136:G:O5'	1.98	0.46
22:DA:298:G:H8	22:DA:298:G:O5'	1.98	0.46
22:DA:374:A:C6	22:DA:401:A:C8	3.03	0.46
22:DA:417:C:H2'	22:DA:418:C:H6	1.79	0.46
22:DA:513:A:N1	22:DA:514:A:C6	2.83	0.46
22:DA:632:A:H2'	22:DA:633:A:C8	2.50	0.46
22:DA:638:G:O2'	22:DA:639:U:C5'	2.63	0.46
22:DA:740:C:C4	22:DA:1981:A:C2	3.03	0.46
22:DA:862:G:O6	22:DA:916:G:C2	2.68	0.46
22:DA:1203:U:C2	22:DA:1204:A:C6	3.02	0.46
22:DA:1373:A:C5'	22:DA:2212:A:H1'	2.44	0.46
22:DA:1717:A:O2'	22:DA:1718:G:C5'	2.63	0.46
22:DA:1721:G:H1'	22:DA:1739:A:H61	1.78	0.46
22:DA:1759:A:C4	22:DA:1760:C:C5	3.03	0.46
22:DA:1869:G:C2	22:DA:1873:G:C6	3.03	0.46
22:DA:2023:C:O2'	22:DA:2024:G:O5'	2.33	0.46
22:DA:2135:A:H2'	22:DA:2136:G:C8	2.50	0.46
22:DA:2145:C:C2'	22:DA:2146:C:H3'	2.45	0.46
22:DA:2369:A:O2'	22:DA:2370:G:H5'	2.15	0.46
22:DA:2376:A:N9	36:DO:99:TYR:CE1	2.84	0.46
22:DA:2566:A:O2'	22:DA:2567:G:OP2	2.31	0.46
22:DA:2668:G:O2'	22:DA:2669:G:P	2.73	0.46
22:DA:2852:G:H2'	22:DA:2853:C:C6	2.50	0.46
22:DA:2876:G:C2	22:DA:2877:G:H1'	2.50	0.46
57:DB:21:G:H2'	57:DB:22:U:O4'	2.13	0.46
57:DB:69:G:C4	57:DB:70:C:C5	3.03	0.46
57:DB:109:A:O2'	57:DB:110:C:O5'	2.33	0.46
24:DC:191:LEU:N	24:DC:191:LEU:CD2	2.77	0.46
25:DD:179:ARG:HB2	25:DD:188:LEU:HD12	1.96	0.46
26:DE:55:SER:OG	26:DE:56:GLY:N	2.47	0.46
28:DG:115:GLN:CG	28:DG:116:LEU:H	2.23	0.46
31:DJ:18:VAL:CG1	31:DJ:54:ILE:HD11	2.45	0.46
31:DJ:56:VAL:HG23	31:DJ:124:VAL:HG23	1.96	0.46
32:DK:2:ILE:N	32:DK:2:ILE:CD1	2.78	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DK:9:ASN:ND2	32:DK:9:ASN:N	2.61	0.46
33:DL:118:THR:HG23	33:DL:120:VAL:HG23	1.97	0.46
37:DP:10:GLU:HG2	37:DP:10:GLU:O	2.15	0.46
37:DP:25:VAL:O	37:DP:25:VAL:HG23	2.15	0.46
40:DS:70:LYS:HD2	40:DS:110:ARG:O	2.16	0.46
42:DU:52:ASN:C	42:DU:54:PRO:HD3	2.40	0.46
43:DV:3:THR:C	43:DV:4:ILE:HG13	2.39	0.46
45:DX:39:VAL:O	45:DX:41:SER:N	2.44	0.46
1:AA:49:U:H5	1:AA:365:U:O4	1.98	0.46
1:AA:144:G:C4	1:AA:179:A:C2	3.04	0.46
1:AA:189:A:H2'	1:AA:190:A:C8	2.51	0.46
1:AA:247:G:C6	1:AA:278:G:C2	3.02	0.46
1:AA:623:C:O2'	1:AA:624:C:H5'	2.15	0.46
1:AA:685:G:H8	1:AA:685:G:O5'	1.98	0.46
1:AA:929:G:C6	1:AA:930:C:C4	3.03	0.46
1:AA:1087:G:O2'	1:AA:1088:G:H5'	2.14	0.46
1:AA:1157:A:N3	1:AA:1181:G:C4	2.83	0.46
2:AB:22:TRP:O	2:AB:22:TRP:CD2	2.68	0.46
2:AB:36:LYS:O	2:AB:37:VAL:HB	2.13	0.46
2:AB:168:GLU:HB3	2:AB:171:ALA:HB3	1.97	0.46
2:AB:168:GLU:O	2:AB:169:HIS:C	2.58	0.46
5:AE:123:LEU:H	5:AE:123:LEU:HD12	1.80	0.46
5:AE:133:ILE:H	5:AE:133:ILE:CD1	2.12	0.46
7:AG:119:LEU:O	7:AG:119:LEU:HD23	2.15	0.46
9:AI:100:ALA:HB1	9:AI:102:PHE:CE2	2.50	0.46
14:AN:68:ARG:HA	14:AN:69:PRO:HD3	1.71	0.46
22:BA:765:C:O2'	22:BA:766:U:C5'	2.55	0.46
22:BA:796:C:H2'	22:BA:797:G:C8	2.50	0.46
22:BA:833:A:H2'	22:BA:834:G:H8	1.80	0.46
22:BA:996:A:O2'	22:BA:997:G:H5'	2.16	0.46
22:BA:1244:A:OP1	33:BL:7:SER:HB3	2.15	0.46
22:BA:1494:A:O2'	22:BA:1495:A:C5'	2.64	0.46
22:BA:1661:G:C5	22:BA:1662:U:C5	3.03	0.46
22:BA:1668:A:C2	22:BA:1674:G:H1'	2.50	0.46
22:BA:1919:A:C2'	22:BA:1920:C:H5'	2.44	0.46
22:BA:2043:C:O2	22:BA:2043:C:H2'	2.14	0.46
22:BA:2870:C:C4	22:BA:2871:U:C5	3.03	0.46
24:BC:15:VAL:C	24:BC:203:VAL:HG11	2.40	0.46
24:BC:266:ILE:O	24:BC:266:ILE:HG22	2.15	0.46
27:BF:129:MET:SD	27:BF:153:ILE:HD11	2.54	0.46
28:BG:71:LEU:HD13	28:BG:74:MET:SD	2.55	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BG:83:THR:HA	28:BG:84:LYS:HE2	1.87	0.46
31:BJ:25:LEU:HB2	31:BJ:62:VAL:HG22	1.96	0.46
31:BJ:41:LYS:N	38:BQ:66:ALA:CB	2.77	0.46
34:BM:50:ARG:O	34:BM:53:MET:HB3	2.16	0.46
35:BN:95:THR:HG22	35:BN:96:ARG:N	2.30	0.46
40:BS:1:MET:HA	40:BS:1:MET:CE	2.45	0.46
41:BT:2:ILE:HG13	41:BT:3:ARG:NH2	2.31	0.46
44:BW:39:GLN:NE2	44:BW:43:LYS:HB2	2.30	0.46
49:B1:27:ARG:CZ	49:B1:27:ARG:HB2	2.44	0.46
53:CA:283:U:C4	53:CA:284:C:C4	3.03	0.46
53:CA:289:G:N1	53:CA:290:C:C4	2.82	0.46
53:CA:440:C:C2'	53:CA:441:A:H5'	2.45	0.46
53:CA:554:A:H2'	53:CA:555:U:C6	2.49	0.46
53:CA:587:G:O2'	53:CA:588:G:H5'	2.16	0.46
53:CA:624:C:H4'	56:CP:10:GLY:C	2.39	0.46
53:CA:752:G:C1'	53:CA:754:C:N4	2.76	0.46
53:CA:755:G:OP2	15:CO:64:LYS:HD2	2.15	0.46
53:CA:855:U:H5	53:CA:871:U:O4	1.99	0.46
53:CA:1012:A:C5	53:CA:1013:G:N7	2.83	0.46
53:CA:1363:A:C6	53:CA:1365:G:C6	3.03	0.46
2:CB:33:ALA:HA	2:CB:37:VAL:O	2.15	0.46
2:CB:122:ASP:CB	2:CB:124:THR:HG22	2.45	0.46
4:CD:29:THR:HB	4:CD:30:LYS:HE3	1.96	0.46
4:CD:138:PRO:O	4:CD:139:ASN:HB2	2.15	0.46
4:CD:195:ASN:O	4:CD:196:GLU:C	2.58	0.46
5:CE:14:LEU:CD1	5:CE:36:THR:HG22	2.44	0.46
5:CE:65:LYS:O	5:CE:69:ASN:OD1	2.33	0.46
8:CH:46:GLU:N	8:CH:63:LYS:HG3	2.30	0.46
17:CQ:49:ASN:O	17:CQ:50:ASN:HB2	2.13	0.46
22:DA:54:G:C5	22:DA:55:G:C8	3.03	0.46
22:DA:117:G:O4'	22:DA:126:A:C2	2.68	0.46
22:DA:185:G:C4	22:DA:212:G:N2	2.83	0.46
22:DA:197:A:C5	22:DA:2430:A:C4	3.03	0.46
22:DA:263:G:H2'	22:DA:264:C:O4'	2.15	0.46
22:DA:269:C:N3	22:DA:270:A:N7	2.64	0.46
22:DA:404:A:C5'	22:DA:405:U:OP1	2.59	0.46
22:DA:406:G:HO2'	22:DA:407:G:H8	1.62	0.46
22:DA:447:A:C8	22:DA:473:G:C6	3.03	0.46
22:DA:567:U:O4	39:DR:80:ARG:HG3	2.14	0.46
22:DA:614:A:H4'	22:DA:616:A:N7	2.31	0.46
22:DA:732:C:N4	22:DA:733:G:C5	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:785:G:O2'	22:DA:1779:U:H5''	2.15	0.46
22:DA:975:A:O2'	22:DA:976:G:C5'	2.62	0.46
22:DA:981:A:H5''	62:DA:3623:HOH:O	2.14	0.46
22:DA:1013:C:O2'	22:DA:1014:A:C5'	2.60	0.46
22:DA:1014:A:N1	22:DA:1149:G:C6	2.82	0.46
22:DA:1555:G:H2'	22:DA:1556:C:C5	2.50	0.46
22:DA:1651:G:C2	22:DA:2007:U:N3	2.84	0.46
22:DA:1853:A:C6	22:DA:1854:A:N1	2.83	0.46
22:DA:1965:C:H5''	22:DA:1966:A:H2'	1.96	0.46
22:DA:2141:G:H2'	22:DA:2142:A:H8	1.81	0.46
22:DA:2350:C:H2'	22:DA:2351:G:C5'	2.46	0.46
22:DA:2582:G:N3	22:DA:2582:G:C2'	2.78	0.46
22:DA:2631:G:N2	22:DA:2788:C:C2	2.83	0.46
24:DC:34:GLU:HG3	24:DC:35:LYS:N	2.30	0.46
24:DC:43:ASN:ND2	24:DC:44:ASN:H	2.13	0.46
26:DE:151:GLY:HA3	26:DE:191:ASP:OD1	2.14	0.46
58:DF:9:ASP:O	58:DF:10:GLU:HB3	2.14	0.46
30:DI:113:ALA:HB2	30:DI:124:MET:HB3	1.95	0.46
32:DK:17:ARG:H	32:DK:45:GLU:HG2	1.79	0.46
35:DN:33:ILE:CD1	35:DN:118:ARG:NH2	2.77	0.46
42:DU:58:VAL:CG1	42:DU:59:GLU:N	2.77	0.46
42:DU:82:VAL:HG23	42:DU:83:GLY:N	2.30	0.46
1:AA:135:C:H2'	1:AA:136:C:H5'	1.96	0.46
1:AA:487:A:H2'	1:AA:488:C:H6	1.79	0.46
1:AA:880:C:P	12:AL:4:ASN:HD22	2.38	0.46
1:AA:919:A:C2'	1:AA:920:U:H5'	2.45	0.46
1:AA:1012:A:N6	1:AA:1013:G:C6	2.84	0.46
1:AA:1231:G:C6	1:AA:1232:U:C4	3.03	0.46
1:AA:1433:A:N6	1:AA:1468:A:C4	2.83	0.46
1:AA:1440:U:H5'	1:AA:1441:A:OP1	2.15	0.46
2:AB:118:THR:O	2:AB:119:GLN:CB	2.62	0.46
2:AB:166:ASP:OD1	2:AB:167:HIS:N	2.48	0.46
2:AB:186:VAL:HG23	2:AB:186:VAL:O	2.15	0.46
11:AK:91:GLY:O	11:AK:95:THR:HB	2.15	0.46
13:AM:4:ALA:H	13:AM:56:ARG:HG3	1.81	0.46
16:AP:2:VAL:HG23	16:AP:65:ALA:CA	2.45	0.46
22:BA:38:A:C2'	22:BA:39:G:O5'	2.63	0.46
22:BA:62:U:C5'	22:BA:63:A:OP1	2.63	0.46
22:BA:223:A:O4'	22:BA:421:C:H4'	2.15	0.46
22:BA:478:A:C6	22:BA:480:A:N6	2.82	0.46
22:BA:626:A:H2'	33:BL:78:ARG:NH1	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:729:G:C4	22:BA:1775:U:C2	3.04	0.46
22:BA:806:C:H6	22:BA:806:C:C5'	2.27	0.46
22:BA:898:C:H2'	22:BA:899:A:H5'	1.97	0.46
22:BA:960:A:N6	22:BA:962:G:N3	2.62	0.46
22:BA:1204:A:H1'	22:BA:1206:G:C5	2.49	0.46
22:BA:1568:G:H4'	24:BC:58:LYS:HG2	1.96	0.46
22:BA:1849:G:H2'	22:BA:1850:G:C8	2.49	0.46
22:BA:2149:U:O2'	22:BA:2150:C:O4'	2.33	0.46
22:BA:2305:U:O2'	22:BA:2306:C:H5'	2.15	0.46
22:BA:2523:G:O2'	22:BA:2524:G:H5'	2.16	0.46
22:BA:2630:G:O2'	22:BA:2631:G:H5'	2.14	0.46
22:BA:2731:G:OP1	25:BD:174:SER:HB2	2.15	0.46
22:BA:2750:A:H4'	22:BA:2751:G:OP1	2.13	0.46
24:BC:68:ARG:NH2	24:BC:126:GLY:O	2.49	0.46
24:BC:94:LEU:HB2	24:BC:100:ARG:CD	2.45	0.46
25:BD:4:LEU:HD22	25:BD:101:PHE:CE1	2.51	0.46
26:BE:7:ASP:CG	26:BE:8:ALA:N	2.74	0.46
27:BF:43:ILE:HG22	27:BF:82:TYR:CD1	2.47	0.46
28:BG:175:LYS:HD3	28:BG:175:LYS:HA	1.78	0.46
29:BH:21:VAL:HG21	29:BH:25:TYR:HD2	1.80	0.46
30:BI:56:VAL:HG11	30:BI:68:PHE:HD2	1.80	0.46
30:BI:105:LEU:HA	30:BI:108:ILE:HD12	1.97	0.46
33:BL:77:ILE:HG12	33:BL:95:LEU:HD13	1.95	0.46
34:BM:27:SER:C	34:BM:28:PHE:CD2	2.93	0.46
40:BS:48:LYS:HD2	40:BS:52:GLU:CD	2.40	0.46
41:BT:18:GLU:C	41:BT:20:ALA:N	2.68	0.46
51:B3:7:ARG:HA	51:B3:7:ARG:HD2	1.42	0.46
53:CA:120:A:O2'	53:CA:121:U:C4'	2.63	0.46
53:CA:935:A:H61	54:CG:2:ARG:CZ	2.28	0.46
53:CA:1061:G:C6	53:CA:1197:A:C2	3.03	0.46
53:CA:1165:U:C2'	53:CA:1166:G:H5'	2.45	0.46
53:CA:1243:C:N4	53:CA:1244:G:O6	2.48	0.46
53:CA:1268:G:C5	53:CA:1269:A:N6	2.84	0.46
53:CA:1276:G:C2'	53:CA:1277:C:H5'	2.46	0.46
53:CA:1380:U:C4	54:CG:2:ARG:HB2	2.49	0.46
53:CA:1417:G:N2	53:CA:1484:C:C4	2.83	0.46
2:CB:112:ARG:O	2:CB:112:ARG:CG	2.64	0.46
3:CC:1:GLY:O	3:CC:2:GLN:C	2.59	0.46
3:CC:149:LYS:HD2	3:CC:149:LYS:O	2.15	0.46
4:CD:150:LYS:HA	4:CD:150:LYS:HD3	1.73	0.46
4:CD:187:ARG:NH2	4:CD:191:SER:HA	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CE:88:HIS:CE1	5:CE:89:THR:HG23	2.50	0.46
54:CG:8:GLN:CD	54:CG:9:ARG:H	2.23	0.46
9:CI:14:SER:HA	9:CI:68:GLY:O	2.15	0.46
12:CL:86:VAL:O	12:CL:88:ASP:N	2.43	0.46
55:CM:3:ILE:O	55:CM:4:ALA:CB	2.62	0.46
14:CN:2:LYS:CD	14:CN:5:MET:HG2	2.45	0.46
56:CP:60:TRP:O	56:CP:63:GLN:N	2.49	0.46
56:CP:71:VAL:HA	56:CP:74:LEU:HB2	1.97	0.46
18:CR:59:LYS:O	18:CR:63:TYR:HD1	1.98	0.46
18:CR:72:ARG:NH2	21:CU:3:ILE:HD13	2.31	0.46
19:CS:35:ARG:HH21	19:CS:51:HIS:CD2	2.25	0.46
22:DA:223:A:C6	22:DA:422:A:N7	2.84	0.46
22:DA:352:A:C2	22:DA:353:C:H1'	2.50	0.46
22:DA:397:U:HO2'	22:DA:398:C:P	2.39	0.46
22:DA:622:G:HO2'	22:DA:623:C:H6	1.57	0.46
22:DA:1084:A:C2'	22:DA:1085:A:H5'	2.46	0.46
22:DA:1261:C:H2'	22:DA:1262:A:H5''	1.97	0.46
22:DA:1299:G:O6	22:DA:1639:C:H5''	2.15	0.46
22:DA:1506:U:H2'	22:DA:1507:C:O4'	2.14	0.46
22:DA:1572:A:H2'	22:DA:1573:G:H8	1.81	0.46
22:DA:1653:G:H5''	22:DA:1654:A:OP1	2.15	0.46
22:DA:1655:A:C5'	25:DD:118:PHE:CD1	2.98	0.46
22:DA:1737:G:C5'	22:DA:1738:G:OP2	2.63	0.46
22:DA:2312:U:O2	22:DA:2312:U:C2'	2.63	0.46
22:DA:2456:C:H2'	22:DA:2457:U:H5'	1.98	0.46
22:DA:2590:A:H5''	24:DC:237:ARG:HG3	1.98	0.46
22:DA:2601:C:C2	22:DA:2603:G:N7	2.84	0.46
22:DA:2638:G:H1'	22:DA:2778:A:H62	1.79	0.46
22:DA:2798:U:C5'	22:DA:2800:A:N7	2.74	0.46
57:DB:57:A:C4	58:DF:25:MET:HB2	2.51	0.46
24:DC:110:LYS:HB3	24:DC:113:ASP:OD1	2.15	0.46
25:DD:66:GLY:C	25:DD:68:PHE:N	2.71	0.46
26:DE:60:TRP:O	26:DE:61:ARG:HB2	2.15	0.46
58:DF:41:GLU:CG	58:DF:42:ALA:H	2.22	0.46
58:DF:129:MET:CE	58:DF:174:PHE:CE1	2.98	0.46
28:DG:53:PRO:HB3	28:DG:61:TRP:N	2.29	0.46
28:DG:112:VAL:O	28:DG:113:ASP:HB2	2.14	0.46
28:DG:122:ALA:O	28:DG:123:GLU:HB2	2.15	0.46
32:DK:7:MET:HE1	32:DK:20:MET:CB	2.44	0.46
32:DK:108:ARG:CA	32:DK:116:ILE:HD13	2.41	0.46
33:DL:93:ASN:CG	33:DL:94:THR:N	2.69	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DM:2:LEU:O	34:DM:3:GLN:HB3	2.16	0.46
34:DM:42:THR:HB	34:DM:45:GLN:CG	2.35	0.46
34:DM:103:TYR:O	34:DM:104:GLU:HG3	2.14	0.46
35:DN:35:LYS:HG2	35:DN:112:TYR:CZ	2.47	0.46
37:DP:19:PHE:CD2	37:DP:19:PHE:N	2.83	0.46
37:DP:56:SER:O	37:DP:57:ALA:HB2	2.15	0.46
42:DU:40:LEU:CA	42:DU:61:GLU:HA	2.44	0.46
45:DX:75:GLU:O	45:DX:76:LYS:HG2	2.16	0.46
46:DY:17:GLU:HA	46:DY:20:ASN:HB2	1.97	0.46
48:D0:42:ILE:HD13	48:D0:48:TYR:HD2	1.77	0.46
48:D0:42:ILE:CD1	48:D0:48:TYR:HB2	2.45	0.46
49:D1:10:LEU:CD2	49:D1:20:TYR:HB3	2.45	0.46
1:AA:22:G:C2'	1:AA:23:C:H5'	2.45	0.46
1:AA:112:G:C6	1:AA:330:C:N4	2.83	0.46
1:AA:404:G:N7	4:AD:1:ALA:HB2	2.31	0.46
1:AA:543:U:C2'	1:AA:544:G:H5'	2.45	0.46
1:AA:562:U:H1'	12:AL:11:ARG:HB3	1.96	0.46
1:AA:675:A:H1'	11:AK:117:HIS:CD2	2.50	0.46
1:AA:1082:A:H2'	1:AA:1083:U:O4'	2.15	0.46
1:AA:1278:G:O5'	1:AA:1279:G:H5'	2.16	0.46
5:AE:68:ARG:O	5:AE:69:ASN:C	2.58	0.46
7:AG:25:PHE:HE1	7:AG:104:VAL:HG23	1.80	0.46
7:AG:49:LEU:HD13	7:AG:49:LEU:C	2.40	0.46
9:AI:26:LYS:O	9:AI:62:LEU:HD23	2.16	0.46
17:AQ:80:LYS:HZ3	17:AQ:80:LYS:CB	2.19	0.46
18:AR:33:THR:OG1	18:AR:34:GLU:N	2.48	0.46
22:BA:14:A:H8	22:BA:14:A:O5'	1.98	0.46
22:BA:845:A:C6	22:BA:847:U:C6	3.04	0.46
22:BA:901:C:C6	22:BA:902:C:C5	3.04	0.46
22:BA:996:A:C4'	38:BQ:91:ARG:HG2	2.45	0.46
22:BA:1063:G:P	30:BI:76:ALA:HB3	2.55	0.46
22:BA:1196:C:H2'	22:BA:1197:G:O4'	2.16	0.46
22:BA:1566:A:O2'	22:BA:1567:G:H5'	2.15	0.46
22:BA:1968:G:O2'	22:BA:1969:A:O4'	2.33	0.46
22:BA:2346:A:H3'	22:BA:2347:C:H5''	1.98	0.46
23:BB:75:G:O4'	43:BV:29:ILE:HD12	2.14	0.46
25:BD:16:THR:CG2	25:BD:18:ASP:OD1	2.43	0.46
25:BD:34:VAL:CG2	25:BD:94:GLN:H	2.28	0.46
25:BD:110:THR:CG2	25:BD:111:GLY:N	2.78	0.46
26:BE:109:LEU:HD13	26:BE:109:LEU:HA	1.57	0.46
27:BF:129:MET:CG	27:BF:153:ILE:HD11	2.45	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BF:152:ASP:N	27:BF:152:ASP:OD2	2.48	0.46
28:BG:148:ARG:HA	28:BG:161:VAL:CG1	2.45	0.46
29:BH:24:GLY:O	29:BH:25:TYR:C	2.58	0.46
29:BH:61:VAL:O	29:BH:61:VAL:CG1	2.64	0.46
30:BI:79:LEU:HD22	30:BI:137:LEU:CD1	2.46	0.46
30:BI:115:ASP:OD1	30:BI:115:ASP:C	2.59	0.46
30:BI:126:ARG:CA	30:BI:129:GLU:HB2	2.43	0.46
34:BM:69:PRO:CA	34:BM:94:ALA:HB2	2.45	0.46
36:BO:24:THR:HG22	36:BO:42:PRO:HD3	1.97	0.46
37:BP:87:ARG:HH21	37:BP:111:GLU:HG3	1.78	0.46
38:BQ:7:VAL:CG2	38:BQ:8:ILE:N	2.79	0.46
43:BV:30:ILE:HG12	43:BV:91:PHE:HB2	1.97	0.46
46:BY:9:LYS:HA	46:BY:9:LYS:HZ2	1.76	0.46
47:BZ:4:ILE:O	47:BZ:4:ILE:HG12	2.05	0.46
52:B4:9:LYS:HB3	52:B4:14:CYS:CB	2.45	0.46
53:CA:91:U:O2'	53:CA:92:U:C5'	2.56	0.46
53:CA:275:G:O2'	53:CA:276:G:O5'	2.34	0.46
53:CA:590:U:O2'	53:CA:591:U:H5'	2.15	0.46
53:CA:693:G:OP1	11:CK:126:ARG:NH1	2.48	0.46
53:CA:734:G:H2'	53:CA:735:C:H6	1.80	0.46
53:CA:844:G:H3'	53:CA:844:G:OP2	2.16	0.46
53:CA:946:A:H2'	53:CA:947:G:H8	1.81	0.46
53:CA:989:U:N3	53:CA:990:C:C5	2.84	0.46
53:CA:1005:A:N7	53:CA:1006:G:H1'	2.29	0.46
53:CA:1130:A:C6	53:CA:1131:G:N7	2.83	0.46
53:CA:1207:G:C6	53:CA:1208:C:C4	3.02	0.46
53:CA:1217:C:O2'	53:CA:1218:C:C6	2.47	0.46
53:CA:1412:C:H2'	53:CA:1413:A:C8	2.51	0.46
53:CA:1509:C:O2'	53:CA:1510:C:H5'	2.15	0.46
4:CD:8:LEU:HD13	4:CD:8:LEU:HA	1.75	0.46
9:CI:98:ARG:HG2	9:CI:103:VAL:CG2	2.45	0.46
10:CJ:102:LEU:HD13	10:CJ:102:LEU:C	2.40	0.46
11:CK:107:THR:HG22	11:CK:108:ASN:HB2	1.97	0.46
12:CL:31:GLY:HA3	12:CL:54:VAL:HG12	1.98	0.46
17:CQ:58:VAL:CG1	17:CQ:74:LEU:HD11	2.45	0.46
19:CS:69:LYS:O	19:CS:72:GLU:HB2	2.14	0.46
20:CT:12:GLN:O	20:CT:12:GLN:HG2	2.15	0.46
21:CU:25:ALA:O	21:CU:29:ALA:N	2.48	0.46
22:DA:26:G:H1'	22:DA:515:A:H61	1.80	0.46
22:DA:336:C:O2'	22:DA:337:C:C5'	2.64	0.46
22:DA:565:C:H2'	22:DA:566:U:H5'	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:627:A:H3'	33:DL:78:ARG:NH1	2.31	0.46
22:DA:677:A:N1	22:DA:678:C:C4	2.83	0.46
22:DA:830:G:H5''	62:DA:3356:HOH:O	2.15	0.46
22:DA:1328:A:C3'	22:DA:1330:C:H41	2.28	0.46
22:DA:1552:A:C2'	22:DA:1553:A:H5'	2.44	0.46
22:DA:1627:G:N2	22:DA:1628:G:C8	2.83	0.46
22:DA:1656:C:OP1	25:DD:141:ARG:NH1	2.49	0.46
22:DA:1776:G:C2	22:DA:1789:A:N3	2.83	0.46
22:DA:1884:G:H2'	22:DA:1884:G:N3	2.31	0.46
22:DA:1998:A:C5	22:DA:1999:C:C5	3.03	0.46
22:DA:2303:G:N1	22:DA:2314:A:C5	2.83	0.46
22:DA:2305:U:H4'	58:DF:132:ARG:HG2	1.97	0.46
22:DA:2394:C:H41	51:D3:30:HIS:CE1	2.34	0.46
22:DA:2403:C:O2'	22:DA:2404:U:H5'	2.15	0.46
22:DA:2626:C:H2'	22:DA:2627:G:H5'	1.96	0.46
22:DA:2837:A:C6	22:DA:2882:A:N1	2.83	0.46
57:DB:16:G:H2'	57:DB:17:C:H6	1.80	0.46
57:DB:63:C:O2	57:DB:63:C:H2'	2.15	0.46
25:DD:27:ILE:HD12	25:DD:189:VAL:HG22	1.97	0.46
25:DD:29:VAL:HB	25:DD:98:VAL:HG12	1.97	0.46
58:DF:12:VAL:O	58:DF:16:MET:HB2	2.14	0.46
58:DF:105:ILE:HG22	58:DF:105:ILE:O	2.16	0.46
30:DI:75:ALA:HA	30:DI:78:LEU:HD12	1.96	0.46
32:DK:2:ILE:O	32:DK:3:GLN:CB	2.62	0.46
32:DK:7:MET:HE1	32:DK:20:MET:CA	2.46	0.46
34:DM:119:LEU:O	34:DM:119:LEU:CD2	2.62	0.46
35:DN:72:ASP:O	35:DN:76:VAL:HG13	2.15	0.46
36:DO:68:LYS:HB2	36:DO:68:LYS:HZ2	1.81	0.46
41:DT:39:THR:C	41:DT:41:ALA:H	2.23	0.46
42:DU:101:THR:O	42:DU:102:ILE:HB	2.14	0.46
44:DW:67:LYS:CB	44:DW:80:SER:HB2	2.43	0.46
46:DY:45:GLN:C	46:DY:46:VAL:HG23	2.41	0.46
1:AA:220:G:C2	1:AA:221:C:C6	3.03	0.46
1:AA:290:C:H2'	1:AA:291:U:H5'	1.98	0.46
1:AA:411:A:H62	1:AA:413:G:H21	1.61	0.46
1:AA:527:G:O2'	1:AA:535:A:N1	2.45	0.46
1:AA:600:A:C2	1:AA:639:G:N3	2.84	0.46
1:AA:788:U:O2'	1:AA:789:U:H5'	2.16	0.46
1:AA:791:G:C6	1:AA:792:A:N7	2.84	0.46
1:AA:834:U:OP1	18:AR:48:ALA:HB2	2.16	0.46
1:AA:1136:C:H3'	1:AA:1136:C:O2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1507:A:N6	1:AA:1530:G:O6	2.48	0.46
2:AB:49:PHE:CA	2:AB:52:ALA:HB3	2.45	0.46
2:AB:56:LEU:C	2:AB:56:LEU:HD13	2.40	0.46
2:AB:130:LYS:NZ	2:AB:133:ALA:HB2	2.30	0.46
4:AD:115:GLN:NE2	4:AD:119:HIS:CE1	2.84	0.46
5:AE:89:THR:CG2	5:AE:90:GLY:H	2.15	0.46
5:AE:110:MET:HA	5:AE:113:VAL:CG1	2.33	0.46
5:AE:137:ARG:O	5:AE:141:ASP:HB2	2.16	0.46
8:AH:4:ASP:OD2	8:AH:76:ARG:NH1	2.49	0.46
8:AH:124:ILE:O	8:AH:124:ILE:CG1	2.64	0.46
9:AI:46:VAL:CG2	9:AI:75:ALA:HB1	2.45	0.46
9:AI:84:ARG:HB2	9:AI:84:ARG:HH11	1.81	0.46
10:AJ:91:ASP:OD1	10:AJ:91:ASP:N	2.47	0.46
11:AK:34:THR:OG1	11:AK:39:ASN:N	2.44	0.46
14:AN:14:ALA:HB1	14:AN:18:LYS:NZ	2.30	0.46
19:AS:57:VAL:O	19:AS:57:VAL:HG23	2.15	0.46
22:BA:322:A:H5'	22:BA:340:A:H1'	1.97	0.46
22:BA:927:A:H2'	22:BA:928:A:C8	2.50	0.46
22:BA:1673:G:C2'	22:BA:1674:G:H5'	2.45	0.46
22:BA:1769:U:O2'	22:BA:1770:G:H5'	2.15	0.46
22:BA:1874:C:H2'	22:BA:1875:G:O4'	2.15	0.46
22:BA:2199:A:N3	22:BA:2199:A:H2'	2.29	0.46
22:BA:2217:G:H2'	22:BA:2218:G:C5'	2.45	0.46
22:BA:2722:G:H2'	22:BA:2723:C:C6	2.50	0.46
22:BA:2808:G:N1	22:BA:2891:U:C5	2.84	0.46
22:BA:2839:G:H2'	22:BA:2840:C:C6	2.51	0.46
22:BA:2846:G:H2'	22:BA:2847:U:O4'	2.16	0.46
23:BB:75:G:O2'	43:BV:88:HIS:HE1	1.98	0.46
23:BB:90:C:C5'	23:BB:90:C:C6	2.91	0.46
25:BD:142:VAL:HB	25:BD:143:PRO:CD	2.46	0.46
25:BD:150:GLN:O	25:BD:151:THR:O	2.33	0.46
27:BF:164:GLU:O	27:BF:167:ALA:HB3	2.16	0.46
28:BG:116:LEU:N	28:BG:116:LEU:CD1	2.78	0.46
32:BK:2:ILE:HD12	32:BK:2:ILE:HA	1.57	0.46
39:BR:5:PHE:CE2	39:BR:7:SER:HB2	2.50	0.46
44:BW:67:LYS:C	44:BW:67:LYS:HE2	2.40	0.46
53:CA:794:A:H2'	53:CA:795:C:C5	2.51	0.46
53:CA:879:C:H2'	53:CA:880:C:O5'	2.15	0.46
53:CA:1014:A:C6	19:CS:33:TRP:CE3	3.04	0.46
53:CA:1125:U:C2	53:CA:1127:G:N7	2.83	0.46
53:CA:1146:A:C6	53:CA:1147:C:N4	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1288:A:O2'	53:CA:1289:A:O4'	2.34	0.46
2:CB:182:VAL:O	2:CB:195:VAL:HG13	2.16	0.46
3:CC:76:ILE:HG12	3:CC:83:VAL:CG1	2.44	0.46
11:CK:35:ASP:CG	11:CK:37:GLN:HB2	2.40	0.46
12:CL:115:LYS:C	12:CL:116:TYR:CG	2.92	0.46
55:CM:19:THR:HA	55:CM:25:GLY:O	2.16	0.46
14:CN:16:ALA:HA	14:CN:20:PHE:CD1	2.50	0.46
14:CN:89:ARG:HG3	14:CN:91:GLU:CG	2.45	0.46
22:DA:294:A:N1	22:DA:346:A:C6	2.83	0.46
22:DA:406:G:H2'	22:DA:407:G:H8	1.80	0.46
22:DA:455:C:N4	22:DA:473:G:H5'	2.29	0.46
22:DA:498:G:C6	22:DA:499:U:C5	3.03	0.46
22:DA:662:G:H4'	33:DL:15:ALA:O	2.15	0.46
22:DA:861:A:O2'	22:DA:862:G:O4'	2.27	0.46
22:DA:976:G:H5''	22:DA:1156:A:N6	2.30	0.46
22:DA:1056:G:H1'	22:DA:1103:A:N1	2.30	0.46
22:DA:1059:G:C6	22:DA:1080:A:N1	2.83	0.46
22:DA:1071:G:N2	22:DA:1090:A:OP2	2.48	0.46
22:DA:1287:A:H2'	22:DA:1288:G:C2	2.50	0.46
22:DA:1296:G:H1'	22:DA:1645:G:N2	2.29	0.46
22:DA:1435:G:N2	22:DA:1558:C:N4	2.63	0.46
22:DA:1439:A:H2	22:DA:1553:A:N7	2.07	0.46
22:DA:1532:A:C2	22:DA:1540:G:N1	2.83	0.46
22:DA:1551:A:C4	22:DA:1552:A:C8	3.04	0.46
22:DA:1821:A:C2'	22:DA:1822:C:O5'	2.63	0.46
22:DA:2092:U:O2	22:DA:2092:U:O4'	2.33	0.46
22:DA:2315:G:C2	22:DA:2316:G:C4	3.04	0.46
22:DA:2651:C:C2'	22:DA:2652:C:H5'	2.46	0.46
22:DA:2654:A:C4'	22:DA:2655:G:OP1	2.63	0.46
28:DG:120:ILE:O	28:DG:120:ILE:HD13	2.15	0.46
32:DK:77:ILE:CD1	32:DK:105:ARG:HH22	2.27	0.46
34:DM:41:LEU:C	34:DM:93:VAL:HG23	2.41	0.46
34:DM:108:VAL:HG21	34:DM:112:LEU:HB3	1.97	0.46
35:DN:38:LEU:HB3	35:DN:39:PRO:CD	2.36	0.46
36:DO:30:ARG:HG2	36:DO:31:THR:H	1.80	0.46
37:DP:85:VAL:C	37:DP:86:LYS:HZ3	2.24	0.46
39:DR:98:ILE:H	39:DR:98:ILE:HD12	1.81	0.46
40:DS:25:ARG:HG3	40:DS:74:ILE:CG2	2.40	0.46
40:DS:58:ALA:O	40:DS:63:GLY:O	2.33	0.46
41:DT:29:THR:OG1	41:DT:85:VAL:HB	2.15	0.46
51:D3:6:VAL:HG12	51:D3:6:VAL:O	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:110:C:H2'	1:AA:111:G:H8	1.71	0.46
1:AA:468:A:C2	1:AA:469:C:C4	3.04	0.46
1:AA:550:G:H2'	1:AA:551:U:C6	2.51	0.46
1:AA:690:G:H2'	1:AA:691:G:O4'	2.15	0.46
1:AA:1226:C:N4	13:AM:102:LYS:HG3	2.30	0.46
1:AA:1371:G:OP1	9:AI:13:SER:HB3	2.16	0.46
1:AA:1394:A:C5	1:AA:1501:C:H4'	2.50	0.46
2:AB:187:ASP:HB2	2:AB:203:ASP:CG	2.41	0.46
4:AD:99:ASN:C	4:AD:99:ASN:ND2	2.73	0.46
15:AO:62:ARG:NH1	15:AO:86:LEU:HD12	2.31	0.46
17:AQ:51:GLU:O	17:AQ:52:CYS:O	2.33	0.46
19:AS:79:TYR:CD1	19:AS:80:ARG:N	2.84	0.46
22:BA:227:A:O2'	22:BA:228:C:OP2	2.30	0.46
22:BA:598:U:H2'	22:BA:599:A:C8	2.51	0.46
22:BA:605:G:H1'	22:BA:657:U:H1'	1.98	0.46
22:BA:720:U:H2'	22:BA:721:A:C8	2.50	0.46
22:BA:731:C:H2'	22:BA:732:C:H6	1.80	0.46
22:BA:1082:U:C2	22:BA:1083:U:O2	2.69	0.46
22:BA:1085:A:C2'	22:BA:1086:A:C2	2.99	0.46
22:BA:1627:G:C2	22:BA:1628:G:C8	3.04	0.46
22:BA:2002:G:H5'	35:BN:12:ARG:O	2.15	0.46
22:BA:2231:U:C2'	22:BA:2232:C:C5'	2.91	0.46
22:BA:2336:A:H62	44:BW:40:ARG:HD2	1.77	0.46
22:BA:2510:C:C6	22:BA:2510:C:C4'	2.96	0.46
22:BA:2716:C:O2	22:BA:2716:C:H2'	2.14	0.46
22:BA:2733:A:H2'	22:BA:2734:A:H8	1.81	0.46
22:BA:2862:G:H2'	22:BA:2863:C:H6	1.80	0.46
25:BD:104:VAL:HG13	25:BD:106:LYS:H	1.79	0.46
25:BD:109:VAL:HG11	25:BD:193:VAL:HB	1.97	0.46
26:BE:174:GLY:O	26:BE:175:ILE:C	2.58	0.46
27:BF:11:VAL:HG22	27:BF:171:ALA:HB1	1.96	0.46
27:BF:13:LYS:O	27:BF:17:THR:HG23	2.16	0.46
27:BF:131:VAL:HG22	27:BF:151:LEU:N	2.24	0.46
29:BH:12:LEU:N	29:BH:12:LEU:CD2	2.79	0.46
32:BK:99:ILE:HG21	32:BK:119:ALA:HB2	1.98	0.46
32:BK:114:LYS:HE2	32:BK:114:LYS:HA	1.97	0.46
34:BM:117:PHE:HD2	34:BM:130:PHE:CE1	2.34	0.46
35:BN:33:ILE:HD11	35:BN:118:ARG:NH2	2.31	0.46
38:BQ:4:LYS:O	38:BQ:5:ARG:HB3	2.15	0.46
40:BS:2:GLU:HA	40:BS:108:SER:HB3	1.97	0.46
40:BS:24:ILE:HG22	40:BS:71:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:11:LEU:N	41:BT:11:LEU:HD23	2.30	0.46
42:BU:41:VAL:C	42:BU:42:LYS:HD3	2.40	0.46
44:BW:71:LYS:N	44:BW:71:LYS:CD	2.79	0.46
45:BX:34:SER:H	45:BX:50:VAL:H	1.61	0.46
53:CA:33:A:C5	53:CA:34:C:C5	3.04	0.46
53:CA:552:U:C2	53:CA:553:A:C8	3.04	0.46
53:CA:579:A:H2'	53:CA:580:C:H6	1.79	0.46
53:CA:1073:U:H2'	53:CA:1074:G:H8	1.81	0.46
53:CA:1184:G:O2'	53:CA:1185:G:C5'	2.64	0.46
2:CB:9:LEU:O	2:CB:10:LYS:CB	2.62	0.46
5:CE:107:GLY:O	5:CE:111:ARG:HB2	2.15	0.46
5:CE:154:ALA:C	5:CE:156:ARG:H	2.23	0.46
10:CJ:25:ILE:O	10:CJ:25:ILE:CG2	2.62	0.46
10:CJ:56:HIS:O	10:CJ:57:VAL:HG12	2.16	0.46
11:CK:21:HIS:C	11:CK:22:ILE:HD12	2.41	0.46
56:CP:48:GLU:HG3	56:CP:51:ARG:NH2	2.24	0.46
56:CP:48:GLU:CG	56:CP:51:ARG:HH21	2.23	0.46
19:CS:32:THR:HG21	19:CS:70:LEU:HD13	1.97	0.46
22:DA:9:G:H21	22:DA:10:A:N6	2.14	0.46
22:DA:82:U:H5''	22:DA:296:U:H5''	1.97	0.46
22:DA:254:G:O2'	22:DA:384:A:H1'	2.16	0.46
22:DA:364:C:H2'	22:DA:365:U:O4'	2.16	0.46
22:DA:410:G:C2	22:DA:2407:A:C6	3.03	0.46
22:DA:438:G:C6	22:DA:439:A:C6	3.04	0.46
22:DA:455:C:N3	22:DA:473:G:C4'	2.78	0.46
22:DA:604:G:C6	22:DA:625:G:C6	3.03	0.46
22:DA:668:A:C2	22:DA:670:A:C6	3.03	0.46
22:DA:687:C:O2'	22:DA:688:U:O4'	2.25	0.46
22:DA:726:G:OP2	22:DA:726:G:H8	1.96	0.46
22:DA:764:A:N1	22:DA:1789:A:O2'	2.48	0.46
22:DA:807:U:OP2	33:DL:41:ARG:NH1	2.48	0.46
22:DA:813:U:C2	22:DA:1195:G:N2	2.84	0.46
22:DA:980:A:H5''	22:DA:981:A:OP2	2.15	0.46
22:DA:1056:G:O5'	22:DA:1085:A:H2	1.99	0.46
22:DA:1071:G:O4'	22:DA:1088:A:O2'	2.32	0.46
22:DA:1239:G:C5	22:DA:1240:U:C6	3.04	0.46
22:DA:1259:G:H2'	22:DA:1260:A:O4'	2.16	0.46
22:DA:1451:C:H5'	22:DA:1452:G:OP1	2.15	0.46
22:DA:1557:C:H2'	22:DA:1558:C:C6	2.51	0.46
22:DA:1671:U:N3	22:DA:1674:G:OP2	2.41	0.46
22:DA:2227:A:H5''	22:DA:2228:G:OP2	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2348:U:O2'	22:DA:2349:G:O5'	2.34	0.46
22:DA:2478:A:C8	22:DA:2529:G:C6	3.03	0.46
22:DA:2638:G:H2'	22:DA:2775:G:N2	2.31	0.46
57:DB:11:C:C5	57:DB:12:C:H5	2.33	0.46
24:DC:163:ILE:HG23	24:DC:171:VAL:CG1	2.46	0.46
24:DC:236:GLY:O	24:DC:238:ASN:N	2.48	0.46
58:DF:28:PRO:HB2	58:DF:168:LEU:HD11	1.96	0.46
28:DG:104:LEU:N	28:DG:112:VAL:HG23	2.31	0.46
28:DG:164:ALA:O	28:DG:165:ASP:CB	2.54	0.46
32:DK:92:GLU:O	32:DK:93:GLN:O	2.34	0.46
35:DN:52:ILE:CG2	35:DN:94:TYR:CE2	2.99	0.46
35:DN:96:ARG:NH1	35:DN:116:VAL:HG22	2.31	0.46
39:DR:66:HIS:CD2	39:DR:94:THR:CG2	2.97	0.46
40:DS:33:LEU:N	40:DS:36:LEU:HD23	2.30	0.46
40:DS:36:LEU:HD22	40:DS:36:LEU:N	2.30	0.46
40:DS:57:ASN:O	40:DS:61:ASN:HB2	2.16	0.46
45:DX:67:LEU:HD23	45:DX:77:TYR:CZ	2.51	0.46
48:D0:41:HIS:ND1	48:D0:41:HIS:C	2.74	0.46
50:D2:22:MET:HG2	50:D2:22:MET:O	2.15	0.46
1:AA:290:C:H2'	1:AA:291:U:C5'	2.45	0.46
1:AA:425:G:H2'	1:AA:426:U:C5'	2.46	0.46
1:AA:436:C:H2'	1:AA:437:U:H6	1.81	0.46
1:AA:511:C:HO2'	1:AA:512:U:C5'	2.28	0.46
1:AA:629:A:C2'	1:AA:630:A:H5'	2.46	0.46
1:AA:1279:G:H1'	1:AA:1282:C:H42	1.80	0.46
2:AB:86:CYS:H	2:AB:88:GLN:NE2	2.14	0.46
3:AC:46:LEU:HB3	3:AC:49:ALA:HB3	1.98	0.46
8:AH:9:MET:HG3	8:AH:26:MET:HE1	1.96	0.46
13:AM:13:HIS:HB3	13:AM:41:ASP:HA	1.98	0.46
14:AN:60:ARG:HA	62:AN:302:HOH:O	2.15	0.46
17:AQ:49:ASN:O	17:AQ:50:ASN:C	2.57	0.46
20:AT:33:LYS:CA	20:AT:33:LYS:CE	2.93	0.46
22:BA:177:G:OP2	22:BA:177:G:N2	2.37	0.46
22:BA:275:C:H3'	22:BA:276:U:H5''	1.98	0.46
22:BA:286:U:H2'	22:BA:287:G:O4'	2.15	0.46
22:BA:712:G:C2	22:BA:713:G:H1'	2.51	0.46
22:BA:1079:C:C4	22:BA:1080:A:N7	2.83	0.46
22:BA:1098:A:H5'	22:BA:1099:G:OP2	2.15	0.46
22:BA:1107:G:N3	22:BA:1108:U:C6	2.84	0.46
22:BA:1190:G:H5''	33:BL:32:GLY:HA2	1.96	0.46
22:BA:1276:A:C8	22:BA:1276:A:C5'	2.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1476:U:OP2	22:BA:1476:U:H6	1.98	0.46
22:BA:1509:A:C2	22:BA:1510:G:C8	3.04	0.46
22:BA:1668:A:O2'	22:BA:1674:G:N7	2.39	0.46
22:BA:2062:A:O2'	22:BA:2063:C:H5''	2.15	0.46
22:BA:2148:G:O2'	22:BA:2149:U:O5'	2.33	0.46
22:BA:2236:U:H2'	22:BA:2237:G:O4'	2.16	0.46
23:BB:51:G:N2	23:BB:53:A:H62	2.13	0.46
24:BC:165:ALA:HB3	24:BC:172:THR:HG21	1.97	0.46
25:BD:124:ARG:HG2	25:BD:125:TRP:NE1	2.30	0.46
29:BH:79:THR:HG22	29:BH:80:ILE:HG12	1.98	0.46
36:BO:79:ALA:HB1	36:BO:113:ALA:CB	2.45	0.46
39:BR:24:LYS:HE2	39:BR:24:LYS:HB3	1.65	0.46
41:BT:29:THR:CA	41:BT:86:THR:H	2.28	0.46
44:BW:26:GLY:O	44:BW:27:GLY:O	2.34	0.46
44:BW:28:GLU:C	44:BW:63:ASP:HB3	2.41	0.46
46:BY:39:GLN:HB2	46:BY:41:HIS:NE2	2.29	0.46
53:CA:309:A:H1'	53:CA:608:A:C2	2.50	0.46
53:CA:348:G:H5''	53:CA:348:G:C8	2.51	0.46
53:CA:704:A:O2'	53:CA:705:G:O5'	2.34	0.46
53:CA:749:A:H2'	53:CA:750:C:H6	1.80	0.46
53:CA:812:G:O2'	53:CA:813:U:C6	2.64	0.46
53:CA:1320:C:N4	19:CS:36:ARG:HG3	2.31	0.46
4:CD:151:GLN:O	4:CD:152:SER:C	2.58	0.46
5:CE:81:GLN:CD	5:CE:149:PRO:HD3	2.41	0.46
6:CF:56:LYS:O	6:CF:57:ALA:HB2	2.15	0.46
54:CG:46:LEU:HD12	54:CG:46:LEU:O	2.16	0.46
8:CH:8:ASP:HA	8:CH:11:THR:OG1	2.16	0.46
11:CK:19:VAL:HG22	11:CK:82:GLU:HG2	1.96	0.46
11:CK:67:GLU:C	11:CK:69:CYS:N	2.74	0.46
11:CK:81:LEU:HD22	11:CK:81:LEU:O	2.14	0.46
12:CL:74:GLN:HA	12:CL:74:GLN:NE2	2.31	0.46
55:CM:12:LYS:CE	55:CM:16:ILE:HG22	2.46	0.46
56:CP:67:ILE:O	56:CP:67:ILE:HG23	2.15	0.46
21:CU:35:GLU:O	21:CU:36:PHE:CD2	2.69	0.46
22:DA:21:A:C6	22:DA:520:G:C6	3.03	0.46
22:DA:219:A:N6	22:DA:220:G:N1	2.64	0.46
22:DA:272:A:C2	22:DA:273:G:C6	3.03	0.46
22:DA:324:A:C2	22:DA:325:G:C1'	2.99	0.46
22:DA:352:A:C3'	22:DA:353:C:H4'	2.46	0.46
22:DA:455:C:N3	22:DA:473:G:H4'	2.30	0.46
22:DA:484:C:O2'	22:DA:485:C:O5'	2.33	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:532:A:C4	22:DA:2021:C:O2	2.69	0.46
22:DA:687:C:O2'	22:DA:688:U:C5'	2.64	0.46
22:DA:752:A:N1	22:DA:1781:U:H1'	2.31	0.46
22:DA:856:G:C2	22:DA:922:C:C2	3.04	0.46
22:DA:1000:A:C6	22:DA:1001:A:C2	3.04	0.46
22:DA:1027:A:C2	22:DA:2488:G:H5''	2.50	0.46
22:DA:1103:A:H8	22:DA:1103:A:O5'	1.99	0.46
22:DA:1342:A:OP1	41:DT:59:ASN:HB3	2.15	0.46
22:DA:1343:G:N3	22:DA:1344:U:C5	2.84	0.46
22:DA:1377:G:H8	22:DA:1377:G:O5'	1.98	0.46
22:DA:1500:G:N1	22:DA:1501:G:C5	2.84	0.46
22:DA:1593:A:C2	22:DA:1594:U:C2	3.04	0.46
22:DA:1666:G:O3'	32:DK:6:THR:HA	2.16	0.46
22:DA:1792:G:C5'	24:DC:203:VAL:HG22	2.45	0.46
22:DA:1816:C:O2'	22:DA:1817:G:OP1	2.34	0.46
22:DA:1817:G:H4'	24:DC:85:ASN:O	2.16	0.46
22:DA:1826:G:P	24:DC:220:ARG:HB3	2.56	0.46
22:DA:1932:A:C2	22:DA:1933:G:H1'	2.50	0.46
22:DA:2142:A:C5	22:DA:2143:C:O2'	2.68	0.46
22:DA:2305:U:H4'	58:DF:132:ARG:CG	2.45	0.46
22:DA:2415:G:C6	22:DA:2416:C:C4	3.03	0.46
22:DA:2834:G:HO2'	22:DA:2879:A:H61	1.60	0.46
22:DA:2851:A:C2'	22:DA:2852:G:C8	2.98	0.46
57:DB:24:G:C8	57:DB:56:G:C5	3.03	0.46
24:DC:83:ASP:CB	24:DC:90:ILE:HD12	2.46	0.46
25:DD:98:VAL:HG23	25:DD:180:VAL:HG12	1.97	0.46
25:DD:127:PHE:O	25:DD:128:ARG:C	2.59	0.46
26:DE:59:PRO:CB	26:DE:67:ARG:HH22	2.28	0.46
58:DF:107:VAL:H	58:DF:108:PRO:CD	2.28	0.46
58:DF:131:VAL:O	58:DF:132:ARG:HB2	2.14	0.46
30:DI:98:GLY:O	30:DI:99:LYS:HD2	2.16	0.46
31:DJ:8:PRO:CG	31:DJ:9:GLU:N	2.78	0.46
33:DL:98:ALA:O	33:DL:99:ASN:C	2.59	0.46
34:DM:61:GLY:HA2	34:DM:107:GLY:CA	2.37	0.46
35:DN:2:ARG:HD2	35:DN:2:ARG:O	2.15	0.46
38:DQ:82:LEU:HD22	38:DQ:108:LEU:CD2	2.46	0.46
40:DS:25:ARG:CB	40:DS:25:ARG:NH1	2.78	0.46
40:DS:69:LEU:HB3	40:DS:107:VAL:CG2	2.46	0.46
46:DY:49:ASP:HA	46:DY:52:ARG:HD2	1.98	0.46
1:AA:131:A:C2	1:AA:132:C:N3	2.84	0.46
1:AA:1022:A:H2'	1:AA:1023:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1320:C:O2'	1:AA:1321:U:O4'	2.33	0.46
1:AA:1501:C:N4	1:AA:1504:G:C2	2.84	0.46
4:AD:142:VAL:O	4:AD:142:VAL:HG13	2.15	0.46
5:AE:45:VAL:HG21	5:AE:117:ALA:CA	2.36	0.46
5:AE:106:ALA:HB2	5:AE:124:ALA:HB3	1.98	0.46
5:AE:149:PRO:HG2	5:AE:150:GLU:H	1.81	0.46
12:AL:32:VAL:O	12:AL:33:CYS:O	2.32	0.46
13:AM:113:LYS:N	13:AM:114:PRO:HD3	2.28	0.46
14:AN:20:PHE:C	14:AN:22:LYS:N	2.74	0.46
14:AN:27:LYS:CD	14:AN:27:LYS:C	2.88	0.46
15:AO:15:GLY:C	15:AO:17:ASP:N	2.72	0.46
15:AO:80:LEU:HD11	15:AO:84:LEU:CD2	2.44	0.46
16:AP:20:VAL:HG22	16:AP:32:PHE:HB2	1.96	0.46
19:AS:33:TRP:O	19:AS:35:ARG:N	2.48	0.46
19:AS:42:ASN:ND2	19:AS:42:ASN:C	2.73	0.46
20:AT:9:ARG:HD2	20:AT:12:GLN:HE21	1.81	0.46
22:BA:108:G:O2'	22:BA:109:C:H5'	2.15	0.46
22:BA:282:A:H2'	22:BA:283:G:C8	2.51	0.46
22:BA:372:G:N2	22:BA:400:G:H2'	2.31	0.46
22:BA:686:U:H4'	22:BA:687:C:OP2	2.15	0.46
22:BA:742:A:H2'	22:BA:743:A:H8	1.79	0.46
22:BA:753:A:H2'	22:BA:754:U:C6	2.51	0.46
22:BA:1091:G:O2'	22:BA:1092:C:C5'	2.64	0.46
22:BA:1309:G:H4'	50:B2:7:PRO:HG2	1.98	0.46
22:BA:1535:A:H4'	22:BA:1536:C:OP2	2.14	0.46
22:BA:1537:G:HO2'	22:BA:1538:G:P	2.38	0.46
22:BA:1912:A:C2	22:BA:1919:A:C6	3.04	0.46
22:BA:2197:U:HO2'	22:BA:2198:A:C2'	2.13	0.46
22:BA:2275:C:O2	34:BM:84:LYS:HG2	2.16	0.46
22:BA:2458:G:C2'	22:BA:2490:G:H1	2.28	0.46
22:BA:2649:C:O2'	22:BA:2650:U:H5'	2.16	0.46
22:BA:2742:G:OP1	52:B4:36:ARG:HD3	2.15	0.46
22:BA:2847:U:H2'	22:BA:2848:G:H5'	1.97	0.46
23:BB:66:A:C2	23:BB:108:A:C2	3.04	0.46
24:BC:141:HIS:NE2	24:BC:193:GLU:C	2.74	0.46
26:BE:198:GLU:O	26:BE:199:MET:C	2.58	0.46
27:BF:172:PHE:O	27:BF:173:ASP:C	2.59	0.46
31:BJ:130:HIS:CD2	31:BJ:132:HIS:H	2.34	0.46
34:BM:45:GLN:O	34:BM:46:ILE:C	2.58	0.46
40:BS:14:ALA:O	40:BS:18:ARG:N	2.48	0.46
41:BT:15:HIS:O	41:BT:17:SER:N	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BT:50:LEU:HD22	46:BY:26:PHE:CZ	2.51	0.46
44:BW:67:LYS:HB2	44:BW:80:SER:HB2	1.98	0.46
45:BX:4:CYS:SG	45:BX:6:VAL:HG13	2.55	0.46
46:BY:18:LEU:O	46:BY:22:LEU:HB2	2.16	0.46
53:CA:177:G:H2'	53:CA:178:C:H5'	1.97	0.46
53:CA:212:G:N2	53:CA:213:G:C5	2.84	0.46
53:CA:495:A:C6	53:CA:496:A:N6	2.84	0.46
53:CA:522:C:O4'	53:CA:536:C:H4'	2.15	0.46
53:CA:961:U:C4	53:CA:983:A:C6	3.04	0.46
53:CA:961:U:H5	53:CA:1223:C:H1'	1.81	0.46
53:CA:982:U:C6	53:CA:983:A:C6	3.04	0.46
53:CA:1154:G:H2'	53:CA:1155:A:C8	2.50	0.46
53:CA:1262:C:H2'	53:CA:1263:C:C5'	2.44	0.46
53:CA:1308:U:C5	55:CM:97:ARG:NH1	2.83	0.46
53:CA:1368:A:C8	9:CI:113:LYS:HD3	2.51	0.46
2:CB:72:LYS:O	2:CB:73:ARG:C	2.59	0.46
4:CD:8:LEU:HD21	4:CD:21:LYS:HD2	1.97	0.46
4:CD:87:GLU:O	4:CD:88:ASN:C	2.58	0.46
4:CD:115:GLN:HG3	4:CD:119:HIS:CE1	2.50	0.46
4:CD:148:ALA:HB1	4:CD:151:GLN:NE2	2.31	0.46
10:CJ:44:THR:CG2	10:CJ:70:HIS:CE1	2.98	0.46
11:CK:123:PRO:HB2	11:CK:125:LYS:CG	2.46	0.46
56:CP:69:ASP:O	56:CP:70:ARG:C	2.58	0.46
19:CS:35:ARG:HA	19:CS:70:LEU:CB	2.43	0.46
21:CU:35:GLU:O	21:CU:36:PHE:CB	2.64	0.46
22:DA:271:G:O2'	22:DA:272:A:P	2.74	0.46
22:DA:397:U:O2'	22:DA:398:C:O4'	2.33	0.46
22:DA:406:G:O2'	22:DA:407:G:C5'	2.63	0.46
22:DA:460:A:OP2	50:D2:41:ARG:NH1	2.45	0.46
22:DA:621:A:C2'	22:DA:622:G:O5'	2.63	0.46
22:DA:627:A:O4'	22:DA:637:A:N6	2.48	0.46
22:DA:827:U:C4	22:DA:2430:A:C6	3.04	0.46
22:DA:1011:G:C6	22:DA:1013:C:C4	3.03	0.46
22:DA:1038:G:C3'	22:DA:1039:A:H5'	2.46	0.46
22:DA:1267:U:C5	22:DA:2012:G:N2	2.84	0.46
22:DA:1385:A:O2'	22:DA:1386:C:C6	2.62	0.46
22:DA:1416:G:N3	22:DA:1417:C:C5	2.84	0.46
22:DA:1731:G:O2'	22:DA:1732:C:C5'	2.49	0.46
22:DA:1737:G:N7	22:DA:1738:G:C6	2.84	0.46
22:DA:1845:G:N2	22:DA:1896:G:C4	2.84	0.46
22:DA:2199:A:C6	22:DA:2225:A:C4	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2432:A:H61	45:DX:20:ALA:CA	2.28	0.46
22:DA:2468:A:N7	22:DA:2476:A:N1	2.64	0.46
22:DA:2645:G:H4'	22:DA:2732:G:H2'	1.97	0.46
22:DA:2679:A:C2	22:DA:2729:G:C6	3.04	0.46
24:DC:32:LEU:HD22	24:DC:63:ILE:CG1	2.46	0.46
24:DC:140:VAL:HG23	24:DC:141:HIS:N	2.30	0.46
24:DC:229:HIS:ND1	24:DC:230:PRO:HD2	2.31	0.46
26:DE:26:ALA:HB1	33:DL:9:ALA:HB2	1.97	0.46
58:DF:110:ILE:H	58:DF:110:ILE:CD1	2.25	0.46
58:DF:177:ARG:CZ	58:DF:178:LYS:HB3	2.46	0.46
28:DG:91:VAL:HG22	28:DG:93:TYR:HE2	1.81	0.46
29:DH:3:VAL:O	29:DH:3:VAL:HG23	2.16	0.46
29:DH:90:LEU:HD22	29:DH:91:PHE:H	1.80	0.46
31:DJ:44:TYR:HD1	38:DQ:63:ARG:HH21	1.61	0.46
32:DK:13:ASN:ND2	32:DK:97:THR:H	2.07	0.46
35:DN:46:ARG:H	35:DN:46:ARG:HG3	1.51	0.46
35:DN:65:LEU:H	35:DN:65:LEU:CD1	2.28	0.46
36:DO:23:ALA:O	36:DO:42:PRO:CG	2.56	0.46
36:DO:41:ALA:O	36:DO:43:ASN:N	2.49	0.46
41:DT:38:ALA:O	41:DT:39:THR:CB	2.64	0.46
42:DU:52:ASN:HD21	42:DU:54:PRO:HG3	1.79	0.46
49:D1:24:LYS:HE3	49:D1:29:LYS:O	2.15	0.46
1:AA:60:A:C4'	1:AA:61:G:O5'	2.54	0.46
1:AA:77:A:H2'	1:AA:78:A:N7	2.31	0.46
1:AA:449:G:O2'	1:AA:450:G:H5'	2.14	0.46
1:AA:1039:G:C2'	1:AA:1040:U:H5'	2.45	0.46
1:AA:1075:U:H4'	1:AA:1101:A:N6	2.30	0.46
1:AA:1219:A:C6	1:AA:1220:G:C6	3.03	0.46
2:AB:30:ILE:HD11	2:AB:38:HIS:CD2	2.50	0.46
4:AD:56:GLU:O	4:AD:59:LYS:HB3	2.16	0.46
4:AD:104:MET:HE2	4:AD:170:LEU:CB	2.45	0.46
4:AD:196:GLU:O	4:AD:198:LEU:N	2.49	0.46
10:AJ:35:GLN:HE21	10:AJ:35:GLN:CA	2.29	0.46
10:AJ:80:THR:O	10:AJ:81:GLU:C	2.59	0.46
11:AK:43:TRP:C	11:AK:43:TRP:CE3	2.94	0.46
12:AL:2:THR:O	12:AL:5:GLN:HB2	2.15	0.46
12:AL:120:ARG:O	12:AL:122:LYS:N	2.47	0.46
13:AM:11:HIS:C	13:AM:12:LYS:HG3	2.39	0.46
14:AN:14:ALA:C	14:AN:18:LYS:HE2	2.41	0.46
19:AS:33:TRP:NE1	19:AS:51:HIS:ND1	2.64	0.46
20:AT:38:ILE:H	20:AT:38:ILE:HG12	1.43	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:601:C:O2	22:BA:605:G:H4'	2.15	0.46
22:BA:871:U:H2'	22:BA:872:U:C6	2.50	0.46
22:BA:1095:A:C6	22:BA:1096:A:N6	2.84	0.46
22:BA:1148:U:H2'	22:BA:1149:G:O4'	2.16	0.46
22:BA:1300:G:H5''	22:BA:1301:A:H5''	1.98	0.46
22:BA:1653:G:H4'	22:BA:1654:A:O5'	2.15	0.46
22:BA:1696:G:C6	22:BA:1697:G:C4	3.04	0.46
22:BA:1964:G:O2'	22:BA:1967:C:P	2.74	0.46
22:BA:2725:A:HO2'	22:BA:2726:A:H2'	1.77	0.46
22:BA:2800:A:O2'	22:BA:2801:G:OP1	2.34	0.46
23:BB:37:C:C6	23:BB:38:C:C5	3.03	0.46
24:BC:163:ILE:HG23	24:BC:171:VAL:HG11	1.98	0.46
25:BD:57:ALA:O	25:BD:60:VAL:HG12	2.16	0.46
34:BM:2:LEU:HD23	34:BM:69:PRO:CD	2.37	0.46
37:BP:5:LYS:O	37:BP:6:GLN:C	2.59	0.46
39:BR:26:ASP:O	39:BR:27:ILE:C	2.59	0.46
40:BS:24:ILE:HD13	40:BS:24:ILE:HA	1.73	0.46
41:BT:37:ASP:O	41:BT:38:ALA:C	2.59	0.46
53:CA:32:A:C2'	53:CA:33:A:C8	2.88	0.46
53:CA:68:G:H5'	53:CA:171:A:O2'	2.15	0.46
53:CA:160:A:O2'	53:CA:344:A:N6	2.48	0.46
53:CA:264:C:O2'	17:CQ:64:ARG:HG3	2.16	0.46
53:CA:268:U:H2'	53:CA:269:C:H6	1.75	0.46
53:CA:354:G:N2	53:CA:355:C:C2	2.84	0.46
53:CA:429:U:H3'	4:CD:8:LEU:HD23	1.97	0.46
53:CA:544:G:C2'	53:CA:545:C:O5'	2.63	0.46
53:CA:642:A:N7	8:CH:106:SER:CA	2.70	0.46
53:CA:750:C:O2'	15:CO:20:ASP:HB2	2.16	0.46
53:CA:775:G:O2'	53:CA:776:G:H5'	2.16	0.46
53:CA:878:A:C6	53:CA:879:C:C5	3.03	0.46
53:CA:940:C:H2'	53:CA:941:G:O4'	2.15	0.46
53:CA:1050:G:C2	53:CA:1051:C:C4	3.03	0.46
53:CA:1146:A:H2'	53:CA:1147:C:C6	2.51	0.46
53:CA:1207:G:C5	53:CA:1208:C:C5	3.04	0.46
53:CA:1282:C:O2'	53:CA:1283:U:C6	2.67	0.46
53:CA:1461:G:C5	53:CA:1462:C:C4	3.04	0.46
53:CA:1530:G:O2'	53:CA:1531:A:H8	1.98	0.46
2:CB:169:HIS:HD2	2:CB:173:LYS:HZ2	1.64	0.46
5:CE:11:GLN:CG	5:CE:40:ASP:O	2.64	0.46
55:CM:21:ILE:HG22	55:CM:22:TYR:N	2.31	0.46
15:CO:10:ILE:HA	15:CO:13:GLU:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:95:A:O2'	46:DY:41:HIS:CD2	2.69	0.46
22:DA:110:G:C4	22:DA:111:A:C8	3.04	0.46
22:DA:165:A:H2'	22:DA:166:U:C6	2.50	0.46
22:DA:425:G:C4	22:DA:426:C:C5	3.04	0.46
22:DA:449:A:C4'	38:DQ:2:ARG:HH22	2.29	0.46
22:DA:628:G:HO2'	22:DA:629:G:H8	1.58	0.46
22:DA:708:G:H2'	22:DA:709:U:H6	1.81	0.46
22:DA:789:A:H4'	22:DA:790:U:OP2	2.15	0.46
22:DA:948:C:O5'	22:DA:948:C:H6	1.98	0.46
22:DA:1203:U:C4	22:DA:1204:A:N7	2.83	0.46
22:DA:1291:C:O2'	22:DA:1292:G:O4'	2.33	0.46
22:DA:1566:A:C2	24:DC:212:TRP:CD2	3.04	0.46
22:DA:1613:G:C6	22:DA:1617:C:C5	3.03	0.46
22:DA:1723:G:C2'	22:DA:1724:G:H5'	2.45	0.46
22:DA:1736:U:H2'	22:DA:1737:G:O4'	2.16	0.46
22:DA:1883:U:H2'	22:DA:1884:G:O4'	2.15	0.46
22:DA:1998:A:C4	22:DA:1999:C:C6	3.04	0.46
22:DA:2036:C:O2'	22:DA:2037:A:H5'	2.15	0.46
22:DA:2151:U:H2'	22:DA:2152:G:C8	2.49	0.46
22:DA:2373:G:O2'	22:DA:2374:C:H5'	2.16	0.46
22:DA:2418:A:C6	22:DA:2419:U:C4	3.04	0.46
22:DA:2507:C:N4	22:DA:2508:G:C6	2.84	0.46
22:DA:2512:C:H2'	22:DA:2513:A:C4'	2.45	0.46
22:DA:2586:U:O5'	22:DA:2586:U:H6	1.99	0.46
22:DA:2756:U:C4'	22:DA:2757:A:C5'	2.94	0.46
57:DB:109:A:C2	57:DB:110:C:C2	3.04	0.46
24:DC:245:THR:HB	24:DC:246:PRO:CD	2.46	0.46
26:DE:30:GLN:HG2	26:DE:30:GLN:O	2.16	0.46
58:DF:32:LYS:HB2	58:DF:32:LYS:NZ	2.31	0.46
58:DF:122:ASP:HB3	58:DF:123:GLY:H	1.55	0.46
58:DF:144:LYS:HG3	58:DF:145:VAL:H	1.80	0.46
28:DG:15:ASP:HB3	28:DG:26:LYS:H	1.81	0.46
29:DH:33:GLN:O	29:DH:34:GLY:C	2.59	0.46
29:DH:73:ASN:C	29:DH:75:LEU:H	2.22	0.46
29:DH:103:VAL:C	29:DH:105:ALA:H	2.24	0.46
29:DH:104:THR:O	29:DH:104:THR:HG23	2.16	0.46
30:DI:44:LYS:O	30:DI:48:ILE:HG23	2.16	0.46
32:DK:1:MET:HA	32:DK:33:ALA:O	2.16	0.46
34:DM:66:ARG:NE	34:DM:101:VAL:HG11	2.30	0.46
34:DM:108:VAL:CG2	34:DM:109:PRO:HD2	2.45	0.46
35:DN:75:ILE:HD12	35:DN:75:ILE:O	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:DU:47:PRO:CB	42:DU:54:PRO:HG3	2.31	0.46
42:DU:81:ARG:HB2	42:DU:96:LYS:CD	2.42	0.46
42:DU:100:GLU:O	42:DU:101:THR:C	2.59	0.46
44:DW:25:PHE:C	44:DW:25:PHE:CD1	2.92	0.46
46:DY:11:VAL:HG12	46:DY:11:VAL:O	2.15	0.46
46:DY:58:ASN:C	46:DY:60:LYS:N	2.70	0.46
48:D0:42:ILE:CD1	48:D0:48:TYR:CD2	2.97	0.46
1:AA:120:A:C5	1:AA:122:G:C6	3.04	0.46
1:AA:515:G:O2'	1:AA:516:U:H5'	2.15	0.46
1:AA:617:G:N1	1:AA:618:C:C5	2.84	0.46
1:AA:854:U:C6	1:AA:871:U:O4	2.69	0.46
1:AA:944:G:N1	1:AA:1338:G:OP2	2.49	0.46
1:AA:1073:U:C2'	1:AA:1074:G:H5'	2.45	0.46
1:AA:1144:G:C8	1:AA:1144:G:OP2	2.69	0.46
1:AA:1181:G:C2	1:AA:1182:G:N2	2.84	0.46
1:AA:1312:G:N7	19:AS:2:ARG:HA	2.31	0.46
4:AD:144:ILE:O	4:AD:145:ARG:C	2.58	0.46
5:AE:32:PHE:CD1	5:AE:55:VAL:HG22	2.51	0.46
8:AH:94:VAL:HG12	8:AH:95:MET:N	2.30	0.46
12:AL:76:HIS:O	12:AL:77:SER:HB2	2.16	0.46
14:AN:30:ILE:HG23	14:AN:44:VAL:HG12	1.98	0.46
18:AR:22:TYR:CD1	18:AR:22:TYR:O	2.68	0.46
20:AT:2:ASN:OD1	20:AT:2:ASN:C	2.58	0.46
22:BA:92:U:H5''	22:BA:92:U:C6	2.51	0.46
22:BA:188:G:H2'	22:BA:189:G:H5'	1.97	0.46
22:BA:288:U:H2'	22:BA:289:G:H8	1.81	0.46
22:BA:481:G:H1'	22:BA:506:G:N2	2.31	0.46
22:BA:531:C:HO2'	22:BA:532:A:P	2.39	0.46
22:BA:709:U:H2'	22:BA:710:U:C6	2.51	0.46
22:BA:915:C:O2	23:BB:100:G:H4'	2.16	0.46
22:BA:1016:G:C2'	22:BA:1017:G:O5'	2.64	0.46
22:BA:1501:G:O2'	22:BA:1502:A:H5'	2.16	0.46
22:BA:1657:U:O2'	25:BD:138:LEU:HD22	2.16	0.46
22:BA:1682:G:O2'	22:BA:1683:U:C5'	2.63	0.46
22:BA:2145:C:OP1	22:BA:2148:G:C5	2.69	0.46
22:BA:2364:C:H2'	22:BA:2365:G:H5'	1.95	0.46
22:BA:2512:C:H5''	22:BA:2513:A:OP2	2.17	0.46
22:BA:2667:C:H2'	22:BA:2668:G:O4'	2.16	0.46
24:BC:106:PRO:HA	24:BC:141:HIS:NE2	2.31	0.46
25:BD:4:LEU:HD23	25:BD:29:VAL:HG11	1.97	0.46
25:BD:110:THR:HG22	25:BD:111:GLY:H	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BD:114:LYS:HE3	25:BD:114:LYS:CA	2.45	0.46
25:BD:124:ARG:HG2	25:BD:125:TRP:CD1	2.50	0.46
26:BE:103:GLY:O	26:BE:104:ALA:C	2.58	0.46
26:BE:129:PRO:HG3	26:BE:156:ASN:CG	2.40	0.46
29:BH:2:GLN:HG2	29:BH:20:ASN:ND2	2.31	0.46
29:BH:78:VAL:HG21	29:BH:145:ASN:ND2	2.31	0.46
31:BJ:80:HIS:HB3	31:BJ:81:ILE:HG22	1.98	0.46
35:BN:1:MET:O	35:BN:2:ARG:CB	2.54	0.46
37:BP:111:GLU:CD	37:BP:111:GLU:N	2.74	0.46
42:BU:73:ASN:HD22	42:BU:76:THR:N	2.08	0.46
45:BX:39:VAL:HG11	45:BX:46:VAL:CG2	2.46	0.46
46:BY:15:ASN:O	46:BY:16:THR:C	2.57	0.46
53:CA:5:U:H4'	53:CA:6:G:C5'	2.46	0.46
53:CA:279:A:H5''	53:CA:280:C:C3'	2.36	0.46
53:CA:312:C:H2'	53:CA:313:A:O4'	2.16	0.46
53:CA:473:U:OP1	56:CP:76:LYS:HE2	2.15	0.46
53:CA:545:C:H2'	53:CA:546:A:H5'	1.98	0.46
53:CA:686:U:O2'	53:CA:687:A:O5'	2.34	0.46
53:CA:769:G:C2'	53:CA:770:C:H5'	2.45	0.46
53:CA:935:A:O2'	53:CA:936:C:O5'	2.34	0.46
53:CA:1004:A:H2'	53:CA:1005:A:C8	2.51	0.46
53:CA:1011:C:N3	53:CA:1019:A:C2	2.84	0.46
53:CA:1046:A:H2'	53:CA:1047:G:C5'	2.46	0.46
53:CA:1262:C:C5	53:CA:1263:C:C5	3.04	0.46
2:CB:8:MET:SD	2:CB:9:LEU:HD23	2.56	0.46
3:CC:124:GLU:CD	3:CC:124:GLU:N	2.74	0.46
4:CD:29:THR:C	4:CD:31:CYS:N	2.74	0.46
4:CD:195:ASN:O	4:CD:197:HIS:N	2.49	0.46
6:CF:19:PRO:HA	6:CF:22:ILE:CG1	2.46	0.46
6:CF:85:ILE:HB	6:CF:86:ARG:H	1.56	0.46
54:CG:91:ARG:NH1	54:CG:92:PRO:HG2	2.31	0.46
8:CH:85:TYR:HD2	8:CH:123:GLU:HB2	1.74	0.46
14:CN:15:LEU:O	14:CN:54:SER:HB2	2.16	0.46
22:DA:14:A:H2'	22:DA:15:G:H8	1.81	0.46
22:DA:33:C:O2	22:DA:447:A:N6	2.49	0.46
22:DA:201:C:C6	22:DA:202:U:H5	2.34	0.46
22:DA:311:A:O2'	22:DA:332:A:O4'	2.29	0.46
22:DA:538:A:C5'	31:DJ:7:LYS:HZ3	2.29	0.46
22:DA:727:A:O2'	22:DA:728:G:O5'	2.34	0.46
22:DA:751:A:O5'	40:DS:90:LYS:HA	2.15	0.46
22:DA:799:G:OP2	22:DA:800:A:C3'	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:818:G:N7	22:DA:1187:G:C6	2.84	0.46
22:DA:832:U:P	33:DL:38:GLN:H	2.38	0.46
22:DA:931:U:O2	22:DA:931:U:H2'	2.15	0.46
22:DA:987:C:O2	22:DA:1000:A:H2	1.98	0.46
22:DA:1082:U:H4'	30:DI:117:THR:O	2.16	0.46
22:DA:1203:U:H2'	22:DA:1204:A:C2	2.51	0.46
22:DA:1461:C:H2'	22:DA:1462:C:H6	1.81	0.46
22:DA:1607:C:H4'	22:DA:1608:A:O5'	2.15	0.46
22:DA:1753:G:N1	22:DA:1756:G:N1	2.64	0.46
22:DA:1969:A:H2'	22:DA:1972:G:H21	1.81	0.46
22:DA:1991:U:C6	22:DA:1991:U:C3'	2.99	0.46
22:DA:2135:A:H2'	22:DA:2136:G:H8	1.80	0.46
22:DA:2497:A:H4'	22:DA:2498:C:O5'	2.16	0.46
22:DA:2506:U:H3'	22:DA:2506:U:H6	1.81	0.46
22:DA:2880:C:O2'	22:DA:2881:U:C5'	2.64	0.46
57:DB:11:C:H2'	57:DB:15:A:H61	1.80	0.46
24:DC:68:ARG:NH1	24:DC:115:ILE:CD1	2.78	0.46
25:DD:107:VAL:CG1	25:DD:109:VAL:CG2	2.92	0.46
26:DE:117:ARG:O	26:DE:186:VAL:HG12	2.16	0.46
26:DE:161:ALA:HB3	26:DE:169:VAL:HG13	1.98	0.46
58:DF:103:ILE:CA	58:DF:107:VAL:HG21	2.37	0.46
30:DI:20:SER:H	30:DI:21:PRO:CD	2.28	0.46
30:DI:98:GLY:HA3	30:DI:137:LEU:HA	1.98	0.46
32:DK:9:ASN:HD21	32:DK:17:ARG:NH2	2.14	0.46
35:DN:28:LEU:HD23	35:DN:29:VAL:N	2.30	0.46
37:DP:59:THR:HG23	37:DP:72:VAL:HG12	1.96	0.46
37:DP:88:ARG:NE	37:DP:112:ARG:HH21	2.12	0.46
39:DR:9:GLY:C	39:DR:10:LYS:HG3	2.40	0.46
41:DT:3:ARG:O	41:DT:4:GLU:C	2.59	0.46
41:DT:7:LEU:O	41:DT:10:VAL:HG13	2.17	0.46
42:DU:52:ASN:ND2	42:DU:54:PRO:HD3	2.30	0.46
45:DX:26:ARG:O	45:DX:27:ARG:HB3	2.16	0.46
48:D0:54:ILE:HG13	48:D0:55:ALA:H	1.80	0.46
1:AA:42:G:H8	1:AA:42:G:O5'	2.00	0.45
1:AA:298:A:H2'	1:AA:299:G:O4'	2.16	0.45
1:AA:369:G:O2'	1:AA:370:C:H5'	2.16	0.45
1:AA:423:G:N3	1:AA:423:G:C2'	2.66	0.45
1:AA:646:G:C2'	1:AA:647:C:H5'	2.45	0.45
1:AA:891:U:O2'	1:AA:892:A:H5'	2.16	0.45
1:AA:1372:U:C4	1:AA:1373:G:C5	3.03	0.45
1:AA:1508:A:H2'	1:AA:1509:C:O4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:132:GLU:O	2:AB:136:ARG:HB2	2.16	0.45
3:AC:18:ASN:HB3	3:AC:39:ARG:NH1	2.22	0.45
3:AC:71:ARG:O	3:AC:74:ILE:HG22	2.15	0.45
6:AF:68:GLN:CD	6:AF:68:GLN:H	2.25	0.45
8:AH:21:LYS:HE2	8:AH:21:LYS:C	2.41	0.45
10:AJ:35:GLN:HG2	10:AJ:77:VAL:CB	2.43	0.45
11:AK:111:ASP:HB3	21:AU:19:LYS:CD	2.45	0.45
15:AO:18:ALA:C	15:AO:20:ASP:H	2.24	0.45
19:AS:10:ILE:O	19:AS:10:ILE:HG13	2.15	0.45
19:AS:54:ARG:H	19:AS:54:ARG:HG3	1.61	0.45
22:BA:84:A:N6	22:BA:101:A:C2	2.67	0.45
22:BA:1632:A:C6	22:BA:1633:G:C6	3.05	0.45
22:BA:1667:G:O2'	22:BA:1991:U:O4	2.24	0.45
22:BA:1744:A:H5''	22:BA:1745:A:OP2	2.15	0.45
22:BA:1845:G:O2'	22:BA:1846:G:H5'	2.16	0.45
22:BA:1863:G:H2'	22:BA:1864:U:O4'	2.15	0.45
22:BA:1885:A:O2'	22:BA:1886:U:C5'	2.63	0.45
22:BA:2197:U:HO2'	22:BA:2198:A:P	2.39	0.45
22:BA:2226:C:H2'	22:BA:2227:A:C8	2.51	0.45
22:BA:2267:A:H2'	22:BA:2267:A:N3	2.31	0.45
22:BA:2475:C:C3'	22:BA:2476:A:H5'	2.43	0.45
22:BA:2536:G:C5	22:BA:2537:U:C5	3.03	0.45
22:BA:2575:C:H2'	22:BA:2578:G:O6	2.15	0.45
24:BC:44:ASN:OD1	24:BC:44:ASN:C	2.58	0.45
27:BF:107:VAL:HG11	27:BF:175:PRO:HG2	1.98	0.45
28:BG:18:ILE:CD1	28:BG:42:VAL:CG1	2.93	0.45
28:BG:33:THR:CA	28:BG:34:ARG:HD3	2.45	0.45
28:BG:72:ASN:C	28:BG:72:ASN:ND2	2.65	0.45
30:BI:24:GLY:O	30:BI:34:ILE:HD12	2.17	0.45
30:BI:123:ALA:HA	30:BI:126:ARG:CZ	2.46	0.45
31:BJ:93:ILE:O	31:BJ:97:PRO:HG3	2.16	0.45
32:BK:10:VAL:HG11	32:BK:16:ALA:CB	2.47	0.45
33:BL:14:LYS:O	33:BL:15:ALA:O	2.33	0.45
35:BN:55:ALA:HB1	35:BN:80:PHE:CA	2.47	0.45
37:BP:33:GLU:CD	37:BP:33:GLU:C	2.82	0.45
39:BR:72:VAL:HG13	39:BR:89:HIS:O	2.15	0.45
43:BV:20:LEU:CD2	43:BV:25:LYS:HB2	2.39	0.45
45:BX:76:LYS:CG	45:BX:77:TYR:N	2.78	0.45
49:B1:42:VAL:CG1	49:B1:42:VAL:O	2.64	0.45
53:CA:59:A:H2'	53:CA:59:A:N3	2.31	0.45
53:CA:120:A:O2'	53:CA:121:U:H4'	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:178:C:C2'	53:CA:179:A:H5'	2.46	0.45
53:CA:245:U:HO2'	53:CA:246:A:H5'	1.77	0.45
53:CA:258:G:O3'	20:CT:35:TYR:OH	2.34	0.45
53:CA:328:C:OP1	53:CA:328:C:H4'	2.15	0.45
53:CA:461:A:O5'	53:CA:462:G:OP2	2.34	0.45
53:CA:542:G:H2'	53:CA:543:U:C6	2.47	0.45
53:CA:669:G:N2	53:CA:738:C:C2	2.83	0.45
53:CA:776:G:N2	53:CA:802:A:OP2	2.48	0.45
53:CA:934:C:H5	53:CA:1344:C:C2	2.34	0.45
53:CA:1007:U:O2	53:CA:1007:U:H2'	2.15	0.45
53:CA:1249:C:H4'	9:CI:74:GLN:HE22	1.81	0.45
53:CA:1254:A:H2'	53:CA:1255:G:H8	1.80	0.45
53:CA:1288:A:H2'	53:CA:1289:A:C8	2.50	0.45
53:CA:1469:C:C5	53:CA:1470:U:C5	3.04	0.45
4:CD:89:LEU:CD2	4:CD:199:ILE:CD1	2.92	0.45
4:CD:137:SER:CB	4:CD:138:PRO:HD2	2.46	0.45
4:CD:203:TYR:C	4:CD:205:LYS:H	2.24	0.45
6:CF:53:LYS:O	6:CF:55:HIS:CD2	2.68	0.45
54:CG:27:ASN:OD1	54:CG:35:LYS:HD2	2.16	0.45
54:CG:94:ARG:HB3	54:CG:98:LEU:HG	1.98	0.45
8:CH:23:ALA:HA	8:CH:62:LEU:HD22	1.96	0.45
12:CL:42:LYS:CD	12:CL:43:LYS:HZ2	2.30	0.45
55:CM:17:ALA:HB3	55:CM:18:LEU:HD12	1.98	0.45
15:CO:25:GLU:HG2	15:CO:80:LEU:HG	1.97	0.45
15:CO:55:LEU:O	15:CO:58:MET:HG3	2.16	0.45
56:CP:1:MET:O	56:CP:1:MET:HG3	2.16	0.45
17:CQ:68:LYS:O	17:CQ:69:THR:CB	2.63	0.45
18:CR:38:ILE:HG22	18:CR:39:VAL:N	2.31	0.45
20:CT:64:GLY:O	20:CT:65:LEU:C	2.59	0.45
22:DA:120:U:C2	22:DA:149:A:C6	3.04	0.45
22:DA:145:C:O5'	22:DA:145:C:H6	1.98	0.45
22:DA:617:G:N3	22:DA:618:G:C8	2.84	0.45
22:DA:618:G:O2'	22:DA:619:G:C5'	2.59	0.45
22:DA:648:G:O2'	22:DA:649:G:H5'	2.16	0.45
22:DA:803:U:O2'	22:DA:804:A:H5'	2.17	0.45
22:DA:830:G:H8	22:DA:830:G:P	2.39	0.45
22:DA:843:G:C6	22:DA:844:A:N6	2.83	0.45
22:DA:956:G:C4'	34:DM:82:MET:HE1	2.46	0.45
22:DA:1171:G:C4	22:DA:1179:G:N2	2.85	0.45
22:DA:1204:A:C4	22:DA:1206:G:C6	3.04	0.45
22:DA:1497:U:H5''	22:DA:1498:C:OP2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1551:A:C6	22:DA:1552:A:N7	2.85	0.45
22:DA:1647:U:C5'	22:DA:1648:U:OP1	2.60	0.45
22:DA:1739:A:O2'	22:DA:1740:G:O5'	2.34	0.45
22:DA:1848:A:H2'	22:DA:1849:G:H8	1.79	0.45
22:DA:2016:U:C4	22:DA:2017:U:C4	3.04	0.45
22:DA:2458:G:O2'	22:DA:2460:U:H5	1.97	0.45
22:DA:2571:U:H2'	22:DA:2572:A:OP1	2.16	0.45
22:DA:2749:A:H4'	28:DG:62:ALA:HB2	1.98	0.45
25:DD:112:THR:O	25:DD:113:SER:HB2	2.17	0.45
28:DG:94:ARG:HG2	28:DG:105:SER:N	2.31	0.45
28:DG:104:LEU:HG	28:DG:112:VAL:HG21	1.97	0.45
28:DG:116:LEU:HA	28:DG:117:PRO:HD3	1.73	0.45
29:DH:42:LYS:HE2	29:DH:43:ASN:OD1	2.16	0.45
31:DJ:44:TYR:CD1	38:DQ:59:LEU:HD11	2.51	0.45
31:DJ:81:ILE:HB	31:DJ:82:GLY:H	1.45	0.45
31:DJ:110:PRO:CB	31:DJ:111:LYS:HG2	2.46	0.45
32:DK:19:VAL:CG1	32:DK:41:ILE:HG12	2.44	0.45
33:DL:70:LYS:HG2	33:DL:70:LYS:O	2.15	0.45
37:DP:50:ARG:HA	37:DP:57:ALA:H	1.80	0.45
37:DP:52:ARG:HB3	37:DP:55:HIS:HB2	1.99	0.45
38:DQ:4:LYS:O	38:DQ:5:ARG:HB2	2.16	0.45
41:DT:38:ALA:O	41:DT:39:THR:HB	2.16	0.45
44:DW:40:ARG:CG	44:DW:40:ARG:NH1	2.50	0.45
49:D1:37:LYS:O	49:D1:48:TYR:CD2	2.69	0.45
1:AA:321:A:H4'	1:AA:1435:G:O2'	2.15	0.45
1:AA:426:U:H2'	1:AA:427:U:C6	2.51	0.45
1:AA:443:C:H2'	1:AA:444:G:H5'	1.95	0.45
1:AA:579:A:O2'	15:AO:53:ARG:NH1	2.50	0.45
1:AA:1069:C:H2'	1:AA:1070:U:O5'	2.16	0.45
1:AA:1280:A:O2'	1:AA:1281:C:H5'	2.16	0.45
1:AA:1323:G:O2'	1:AA:1324:A:C8	2.66	0.45
1:AA:1410:A:C2	1:AA:1411:C:C2	3.05	0.45
2:AB:98:GLY:C	2:AB:100:LEU:H	2.24	0.45
2:AB:207:ARG:C	2:AB:209:VAL:N	2.73	0.45
3:AC:5:HIS:HD2	3:AC:8:GLY:H	1.64	0.45
3:AC:144:GLY:O	3:AC:145:ALA:CB	2.64	0.45
6:AF:71:ILE:CG2	6:AF:72:ASP:N	2.80	0.45
10:AJ:29:ALA:C	10:AJ:31:ARG:H	2.25	0.45
15:AO:73:ASP:O	15:AO:74:VAL:C	2.59	0.45
18:AR:33:THR:CG2	18:AR:37:LYS:N	2.79	0.45
19:AS:22:VAL:HG12	19:AS:23:GLU:N	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AS:48:ILE:HD12	19:AS:48:ILE:O	2.16	0.45
20:AT:74:HIS:O	20:AT:78:LEU:HB2	2.16	0.45
22:BA:5:A:C2	22:BA:2899:A:C2	3.04	0.45
22:BA:18:U:P	38:BQ:29:ARG:HH22	2.40	0.45
22:BA:38:A:C2	22:BA:442:G:C2	3.04	0.45
22:BA:154:U:H2'	22:BA:155:A:H8	1.82	0.45
22:BA:312:G:H2'	22:BA:313:G:C8	2.51	0.45
22:BA:387:U:C5	22:BA:388:G:C6	3.03	0.45
22:BA:511:U:C5	22:BA:512:G:C4	3.03	0.45
22:BA:560:C:H2'	22:BA:561:G:C5'	2.46	0.45
22:BA:634:C:H2'	22:BA:635:C:H6	1.80	0.45
22:BA:679:C:H2'	22:BA:680:C:C6	2.51	0.45
22:BA:778:G:C6	22:BA:779:U:N3	2.85	0.45
22:BA:806:C:H6	22:BA:806:C:O5'	1.99	0.45
22:BA:885:C:H6	22:BA:885:C:O5'	1.98	0.45
22:BA:899:A:O2'	22:BA:900:A:C8	2.62	0.45
22:BA:969:G:H2'	22:BA:970:U:C6	2.51	0.45
22:BA:1070:A:C6	22:BA:1097:U:H4'	2.51	0.45
22:BA:1138:G:N3	31:BJ:108:MET:HE2	2.30	0.45
22:BA:1152:C:H3'	62:BA:3357:HOH:O	2.17	0.45
22:BA:1205:A:H4'	22:BA:1206:G:OP2	2.17	0.45
22:BA:1421:G:C2	22:BA:1422:G:N7	2.84	0.45
22:BA:1533:C:H42	22:BA:1538:G:H1	1.64	0.45
22:BA:1813:G:H1'	24:BC:49:THR:HG21	1.98	0.45
22:BA:1817:G:N3	22:BA:1817:G:H2'	2.32	0.45
22:BA:1998:A:H2'	22:BA:1999:C:C6	2.51	0.45
22:BA:2081:U:H4'	45:BX:24:THR:HG21	1.98	0.45
22:BA:2270:A:H2'	22:BA:2271:G:O4'	2.15	0.45
22:BA:2465:C:O2'	22:BA:2466:C:H5'	2.15	0.45
22:BA:2471:A:N6	22:BA:2472:G:C2	2.84	0.45
22:BA:2592:G:C5	22:BA:2593:U:C4	3.04	0.45
22:BA:2817:U:C2'	22:BA:2818:U:O5'	2.64	0.45
23:BB:37:C:C5	23:BB:38:C:C5	3.04	0.45
28:BG:132:LEU:CD1	28:BG:143:VAL:HG12	2.46	0.45
29:BH:1:MET:SD	29:BH:27:ARG:NH2	2.89	0.45
29:BH:134:VAL:HG21	29:BH:139:PHE:C	2.42	0.45
32:BK:64:ARG:HB3	32:BK:79:PHE:CD1	2.52	0.45
34:BM:43:ALA:C	34:BM:45:GLN:N	2.69	0.45
40:BS:24:ILE:HG23	40:BS:71:VAL:HG11	1.97	0.45
41:BT:48:GLN:HE21	41:BT:48:GLN:CA	2.18	0.45
42:BU:27:VAL:HA	42:BU:33:VAL:CG1	2.43	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BU:78:LYS:CG	42:BU:79:ALA:N	2.79	0.45
43:BV:30:ILE:HA	43:BV:91:PHE:O	2.16	0.45
46:BY:26:PHE:C	46:BY:26:PHE:CD1	2.94	0.45
53:CA:34:C:O2	53:CA:34:C:C2'	2.64	0.45
53:CA:62:U:O2'	53:CA:63:C:H5'	2.16	0.45
53:CA:131:A:C6	53:CA:232:G:C6	3.04	0.45
53:CA:286:C:H2'	53:CA:287:U:C6	2.51	0.45
53:CA:337:G:H2'	53:CA:338:A:H8	1.80	0.45
53:CA:707:U:H4'	11:CK:21:HIS:CD2	2.52	0.45
53:CA:708:C:H2'	53:CA:709:U:H6	1.80	0.45
53:CA:1051:C:HO2'	53:CA:1052:U:P	2.38	0.45
53:CA:1328:C:OP1	55:CM:27:THR:HG21	2.16	0.45
4:CD:164:ARG:HB3	4:CD:165:GLU:H	1.38	0.45
5:CE:43:GLY:O	5:CE:73:VAL:N	2.44	0.45
5:CE:43:GLY:O	5:CE:73:VAL:HB	2.16	0.45
6:CF:81:ASN:O	6:CF:84:VAL:HG12	2.16	0.45
54:CG:17:PHE:HB2	54:CG:43:TYR:OH	2.16	0.45
9:CI:12:LYS:O	9:CI:13:SER:HB3	2.16	0.45
9:CI:45:MET:HA	9:CI:48:ARG:CG	2.46	0.45
9:CI:91:GLU:O	9:CI:91:GLU:HG3	2.16	0.45
9:CI:129:ARG:CZ	9:CI:129:ARG:HA	2.46	0.45
11:CK:26:PHE:CZ	11:CK:88:PRO:HG2	2.50	0.45
11:CK:96:ILE:O	11:CK:97:ARG:C	2.58	0.45
14:CN:20:PHE:CB	14:CN:24:ALA:HB2	2.46	0.45
17:CQ:29:LYS:NZ	17:CQ:36:PHE:CD2	2.78	0.45
19:CS:48:ILE:O	19:CS:50:VAL:HG13	2.16	0.45
22:DA:219:A:C5	22:DA:220:G:C5	3.04	0.45
22:DA:248:G:H5'	22:DA:250:G:N7	2.30	0.45
22:DA:603:A:H4'	22:DA:604:G:H4'	1.98	0.45
22:DA:629:G:H2'	22:DA:630:G:C8	2.51	0.45
22:DA:922:C:C4	22:DA:923:G:N7	2.83	0.45
22:DA:1056:G:H21	22:DA:1102:C:H41	1.64	0.45
22:DA:1272:A:N3	22:DA:1618:A:C4	2.84	0.45
22:DA:1297:C:N3	22:DA:1298:C:C5	2.84	0.45
22:DA:1326:U:O2'	22:DA:1327:A:O5'	2.34	0.45
22:DA:1345:C:O2'	22:DA:1346:G:P	2.74	0.45
22:DA:1352:U:H5	22:DA:1377:G:O6	1.95	0.45
22:DA:1665:A:N7	62:DA:3439:HOH:O	2.36	0.45
22:DA:1735:A:O2'	22:DA:1736:U:O4'	2.34	0.45
22:DA:1786:A:P	62:DA:3459:HOH:O	2.74	0.45
22:DA:1790:C:O2'	24:DC:207:ALA:CB	2.61	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1904:G:O2'	22:DA:1905:C:H5'	2.17	0.45
22:DA:1997:C:O2'	22:DA:1998:A:O5'	2.34	0.45
22:DA:2270:A:H5'	44:DW:18:LYS:HG2	1.98	0.45
22:DA:2415:G:H2'	22:DA:2416:C:C6	2.51	0.45
57:DB:16:G:H2'	57:DB:17:C:C6	2.51	0.45
24:DC:28:PRO:HB3	24:DC:62:ARG:NH2	2.24	0.45
24:DC:211:ARG:C	24:DC:213:ARG:H	2.24	0.45
25:DD:121:THR:O	25:DD:122:VAL:HB	2.17	0.45
26:DE:77:ILE:H	26:DE:77:ILE:HG12	1.50	0.45
26:DE:196:VAL:HA	26:DE:199:MET:HB3	1.97	0.45
58:DF:42:ALA:CB	58:DF:48:LEU:HD11	2.46	0.45
58:DF:60:SER:C	58:DF:62:GLN:N	2.69	0.45
29:DH:96:THR:O	29:DH:97:ARG:CG	2.62	0.45
32:DK:58:LEU:HD22	32:DK:89:ASN:HD22	1.81	0.45
35:DN:24:MET:HG2	35:DN:44:LEU:CD1	2.45	0.45
36:DO:14:ALA:O	36:DO:18:LEU:N	2.44	0.45
37:DP:67:GLU:OE1	37:DP:68:GLY:N	2.49	0.45
37:DP:85:VAL:O	37:DP:85:VAL:HG13	2.16	0.45
45:DX:38:TRP:CE3	45:DX:38:TRP:HA	2.50	0.45
1:AA:36:C:O2'	1:AA:501:C:OP1	2.34	0.45
1:AA:198:G:C6	1:AA:220:G:C4	3.05	0.45
1:AA:683:G:H2'	1:AA:684:U:H5'	1.98	0.45
1:AA:729:A:C2'	1:AA:730:G:H5'	2.46	0.45
1:AA:1071:C:C2	1:AA:1105:A:C2	3.04	0.45
1:AA:1126:U:O2'	1:AA:1127:G:H5'	2.16	0.45
1:AA:1144:G:H2'	1:AA:1145:A:O4'	2.17	0.45
1:AA:1197:A:O2'	1:AA:1198:G:C5'	2.52	0.45
4:AD:26:ALA:O	4:AD:27:ILE:C	2.59	0.45
4:AD:87:GLU:O	4:AD:90:LEU:N	2.49	0.45
5:AE:104:ILE:O	5:AE:104:ILE:HG12	2.15	0.45
7:AG:113:LYS:HB2	7:AG:117:LEU:HD12	1.98	0.45
8:AH:15:ASN:O	8:AH:18:ALA:HB3	2.17	0.45
8:AH:44:PHE:HE2	8:AH:100:ILE:HG12	1.80	0.45
9:AI:4:GLN:CA	9:AI:4:GLN:HE21	2.29	0.45
11:AK:92:ARG:HD3	21:AU:24:LYS:HE2	1.98	0.45
11:AK:124:LYS:NZ	11:AK:127:ARG:CD	2.79	0.45
14:AN:33:VAL:HG12	14:AN:33:VAL:O	2.16	0.45
14:AN:42:ASN:C	14:AN:44:VAL:N	2.73	0.45
15:AO:45:HIS:C	15:AO:47:LYS:H	2.24	0.45
22:BA:28:A:C4	22:BA:513:A:N7	2.85	0.45
22:BA:548:G:O2'	22:BA:549:G:C5	2.69	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:783:A:O2'	22:BA:785:G:OP1	2.34	0.45
22:BA:1040:A:H2	22:BA:1115:G:H22	1.64	0.45
22:BA:1105:U:C2	22:BA:1106:G:N7	2.85	0.45
22:BA:1301:A:C2	22:BA:1303:G:C6	3.04	0.45
22:BA:1424:G:H2'	22:BA:1425:G:O4'	2.17	0.45
22:BA:1498:C:O2'	22:BA:1499:C:O5'	2.33	0.45
22:BA:1668:A:H4'	22:BA:1669:A:O5'	2.16	0.45
22:BA:2656:U:C5	22:BA:2664:G:N2	2.84	0.45
22:BA:2682:A:H61	22:BA:2728:U:H1'	1.81	0.45
22:BA:2751:G:O2'	22:BA:2752:C:H5'	2.16	0.45
29:BH:4:ILE:O	29:BH:37:VAL:HG12	2.15	0.45
32:BK:103:VAL:O	32:BK:122:VAL:HB	2.16	0.45
33:BL:110:VAL:HG12	33:BL:131:ALA:CB	2.46	0.45
38:BQ:87:VAL:O	38:BQ:88:GLU:CB	2.61	0.45
39:BR:46:GLU:CG	39:BR:47:VAL:N	2.79	0.45
40:BS:59:GLU:CA	40:BS:64:ALA:HB2	2.34	0.45
42:BU:100:GLU:O	42:BU:101:THR:CB	2.63	0.45
43:BV:39:ALA:O	43:BV:40:ILE:HD13	2.16	0.45
43:BV:65:VAL:O	43:BV:66:ASP:OD1	2.34	0.45
47:BZ:15:ARG:HD2	47:BZ:15:ARG:H	1.81	0.45
49:B1:31:GLU:HG2	49:B1:31:GLU:O	2.16	0.45
53:CA:537:G:H5''	12:CL:109:ARG:HH11	1.80	0.45
53:CA:676:A:H1'	11:CK:116:PRO:HB3	1.98	0.45
53:CA:992:U:O2'	53:CA:993:G:H5''	2.16	0.45
53:CA:1343:G:H1'	9:CI:122:ARG:NH1	2.31	0.45
4:CD:187:ARG:NH2	4:CD:191:SER:HB3	2.32	0.45
4:CD:187:ARG:O	4:CD:189:ASP:N	2.48	0.45
8:CH:45:ILE:C	8:CH:63:LYS:HD2	2.41	0.45
10:CJ:87:LEU:HD22	10:CJ:90:LEU:HD13	1.98	0.45
11:CK:124:LYS:O	21:CU:33:ARG:CZ	2.65	0.45
55:CM:16:ILE:CD1	55:CM:16:ILE:H	2.29	0.45
17:CQ:27:PHE:CE1	17:CQ:36:PHE:HB3	2.51	0.45
22:DA:17:G:C6	22:DA:524:G:C6	3.04	0.45
22:DA:42:A:C2	22:DA:438:G:C2	3.05	0.45
22:DA:84:A:N1	22:DA:98:G:O2'	2.45	0.45
22:DA:121:G:N3	22:DA:131:A:C2	2.85	0.45
22:DA:156:A:H3'	22:DA:156:A:OP2	2.17	0.45
22:DA:323:C:C6	26:DE:165:HIS:NE2	2.85	0.45
22:DA:370:G:C6	22:DA:424:G:C5	3.04	0.45
22:DA:402:A:H2'	22:DA:403:U:O4'	2.16	0.45
22:DA:580:U:C6	22:DA:580:U:H3'	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:602:A:H5'	22:DA:605:G:OP1	2.16	0.45
22:DA:614:A:N3	22:DA:614:A:OP2	2.49	0.45
22:DA:746:U:H5''	22:DA:748:G:H5'	1.98	0.45
22:DA:769:U:H6	22:DA:769:U:O5'	1.99	0.45
22:DA:806:C:OP2	33:DL:37:GLY:N	2.49	0.45
22:DA:1204:A:N9	22:DA:1206:G:C6	2.84	0.45
22:DA:1216:G:C2'	22:DA:1217:U:H5'	2.45	0.45
22:DA:1385:A:O2'	22:DA:1386:C:O5'	2.33	0.45
22:DA:1518:C:H2'	22:DA:1519:G:O4'	2.15	0.45
22:DA:1890:A:H2'	22:DA:1891:G:C5'	2.47	0.45
22:DA:1998:A:H4'	22:DA:2724:U:O2'	2.15	0.45
22:DA:2217:G:H2'	22:DA:2218:G:H8	1.82	0.45
22:DA:2238:G:C4'	22:DA:2239:G:OP1	2.64	0.45
22:DA:2372:U:H2'	22:DA:2372:U:O2	2.15	0.45
22:DA:2752:C:O2'	22:DA:2753:A:C5'	2.65	0.45
22:DA:2896:C:O2'	22:DA:2897:U:H5'	2.15	0.45
57:DB:58:A:O2'	57:DB:59:A:O4'	2.27	0.45
24:DC:61:TYR:CE1	24:DC:62:ARG:O	2.69	0.45
25:DD:118:PHE:HE1	25:DD:119:ALA:O	1.99	0.45
25:DD:173:GLN:OE1	25:DD:208:LYS:HE3	2.15	0.45
26:DE:165:HIS:O	26:DE:167:VAL:N	2.50	0.45
28:DG:25:ILE:HG22	28:DG:25:ILE:O	2.15	0.45
28:DG:93:TYR:HD2	28:DG:93:TYR:N	2.01	0.45
28:DG:120:ILE:HD13	28:DG:120:ILE:C	2.40	0.45
31:DJ:44:TYR:C	31:DJ:44:TYR:HD2	2.24	0.45
32:DK:103:VAL:O	32:DK:104:THR:HB	2.16	0.45
34:DM:97:GLN:HB2	34:DM:98:PRO:CD	2.45	0.45
36:DO:34:HIS:HD2	36:DO:53:THR:OG1	1.99	0.45
37:DP:19:PHE:HE1	37:DP:58:PHE:CD1	2.35	0.45
38:DQ:60:TRP:O	38:DQ:64:ILE:HG12	2.16	0.45
42:DU:80:ASP:N	42:DU:80:ASP:OD1	2.47	0.45
1:AA:22:G:C6	1:AA:23:C:C4	3.04	0.45
1:AA:185:U:H2'	1:AA:186:C:C6	2.51	0.45
1:AA:597:G:C2	1:AA:644:U:O2	2.69	0.45
1:AA:737:C:C2	1:AA:738:C:C5	3.04	0.45
1:AA:903:G:H2'	1:AA:904:U:H6	1.82	0.45
1:AA:1062:U:H2'	1:AA:1063:C:C5	2.52	0.45
1:AA:1321:U:H3'	1:AA:1322:C:O2	2.16	0.45
1:AA:1395:C:O2'	1:AA:1396:A:H5'	2.17	0.45
2:AB:123:GLY:O	2:AB:125:PHE:CD2	2.69	0.45
3:AC:6:PRO:HG2	3:AC:183:TYR:CG	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AD:22:SER:O	4:AD:23:GLY:C	2.59	0.45
4:AD:68:GLU:O	4:AD:69:ARG:C	2.59	0.45
8:AH:45:ILE:HA	8:AH:63:LYS:HG3	1.96	0.45
11:AK:51:PHE:N	11:AK:51:PHE:CD2	2.81	0.45
15:AO:20:ASP:CG	15:AO:23:SER:HB2	2.41	0.45
18:AR:19:GLU:HG3	18:AR:54:LEU:HD22	1.98	0.45
21:AU:11:PHE:O	21:AU:12:ASP:CB	2.64	0.45
22:BA:28:A:C5	22:BA:29:U:C5	3.04	0.45
22:BA:572:A:H8	22:BA:572:A:C5'	2.30	0.45
22:BA:687:C:H2'	22:BA:688:U:C6	2.51	0.45
22:BA:818:G:H2'	22:BA:819:A:OP2	2.16	0.45
22:BA:1060:U:C5'	22:BA:1061:U:OP1	2.64	0.45
22:BA:1335:C:C2'	22:BA:1336:A:O5'	2.64	0.45
22:BA:1476:U:OP2	22:BA:1476:U:C6	2.69	0.45
22:BA:1709:U:C2	22:BA:1750:G:N2	2.84	0.45
22:BA:1776:G:C2	22:BA:1777:U:C6	3.04	0.45
22:BA:2002:G:C2	22:BA:2003:A:C8	3.04	0.45
22:BA:2501:C:H6	22:BA:2501:C:H2'	1.55	0.45
22:BA:2527:C:C2'	22:BA:2528:U:H5'	2.47	0.45
22:BA:2599:G:O2'	22:BA:2600:A:H5'	2.17	0.45
22:BA:2650:U:H2'	22:BA:2651:C:H6	1.80	0.45
23:BB:25:U:H2'	23:BB:26:C:C6	2.52	0.45
24:BC:229:HIS:CD2	24:BC:246:PRO:HA	2.51	0.45
25:BD:9:VAL:O	25:BD:197:THR:CG2	2.64	0.45
25:BD:53:GLY:HA3	25:BD:77:ARG:CB	2.47	0.45
26:BE:145:ASP:HA	26:BE:166:LYS:O	2.17	0.45
29:BH:78:VAL:HB	29:BH:145:ASN:HB3	1.98	0.45
29:BH:141:LYS:O	29:BH:142:VAL:HG13	2.17	0.45
31:BJ:122:LEU:C	31:BJ:123:LYS:HD2	2.41	0.45
32:BK:15:GLY:O	32:BK:16:ALA:O	2.34	0.45
32:BK:113:MET:SD	32:BK:116:ILE:CD1	2.93	0.45
36:BO:3:LYS:CG	36:BO:4:LYS:H	2.30	0.45
36:BO:33:ARG:HG2	36:BO:34:HIS:ND1	2.32	0.45
36:BO:79:ALA:CB	36:BO:113:ALA:HB1	2.46	0.45
38:BQ:8:ILE:O	38:BQ:12:ARG:HG3	2.16	0.45
41:BT:29:THR:N	41:BT:91:GLN:HE22	2.13	0.45
45:BX:38:TRP:CH2	45:BX:44:ARG:N	2.85	0.45
46:BY:5:GLU:O	46:BY:6:LEU:C	2.60	0.45
46:BY:40:SER:C	46:BY:42:LEU:N	2.74	0.45
50:B2:12:ARG:HG3	50:B2:13:ASN:ND2	2.32	0.45
53:CA:27:G:C5	53:CA:557:G:C2	3.03	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:90:C:O2'	53:CA:91:U:H5'	2.16	0.45
53:CA:142:G:C5	53:CA:143:A:C8	3.04	0.45
53:CA:160:A:N1	53:CA:343:U:H1'	2.32	0.45
53:CA:198:G:O2'	53:CA:199:A:O5'	2.35	0.45
53:CA:398:U:H2'	53:CA:399:G:H8	1.82	0.45
53:CA:688:G:H8	53:CA:688:G:H5''	1.80	0.45
53:CA:751:U:C2'	53:CA:752:G:H5'	2.45	0.45
53:CA:935:A:O2'	53:CA:936:C:H6	1.92	0.45
53:CA:973:G:O2'	14:CN:68:ARG:NH2	2.50	0.45
53:CA:1084:G:OP1	53:CA:1086:U:C6	2.70	0.45
53:CA:1108:G:H5''	3:CC:175:HIS:HE1	1.79	0.45
53:CA:1327:C:C4	53:CA:1328:C:N4	2.85	0.45
53:CA:1371:G:OP1	9:CI:12:LYS:HG2	2.16	0.45
2:CB:210:THR:O	2:CB:210:THR:HG22	2.16	0.45
54:CG:105:GLU:O	54:CG:109:LYS:HD3	2.15	0.45
9:CI:55:ASP:O	9:CI:59:LYS:HE2	2.16	0.45
10:CJ:30:LYS:HD3	10:CJ:30:LYS:C	2.42	0.45
11:CK:87:GLY:H	11:CK:113:THR:HG23	1.82	0.45
12:CL:111:GLN:O	12:CL:112:ALA:HB3	2.17	0.45
55:CM:69:ARG:HD2	55:CM:69:ARG:N	2.30	0.45
14:CN:100:TRP:C	14:CN:100:TRP:CD1	2.94	0.45
22:DA:132:G:N2	22:DA:148:U:C2	2.84	0.45
22:DA:352:A:C3'	22:DA:353:C:C4'	2.95	0.45
22:DA:428:A:O2'	22:DA:429:A:H5'	2.17	0.45
22:DA:435:C:C5	22:DA:436:C:C5	3.03	0.45
22:DA:458:G:N2	22:DA:469:G:H2'	2.32	0.45
22:DA:857:G:O2'	44:DW:19:ARG:CZ	2.65	0.45
22:DA:908:C:OP1	34:DM:22:GLN:HG3	2.16	0.45
22:DA:1021:A:H2'	22:DA:1022:G:H4'	1.98	0.45
22:DA:1085:A:H4'	22:DA:1105:U:O4'	2.17	0.45
22:DA:1307:A:C2'	22:DA:1308:A:C5'	2.89	0.45
22:DA:1436:G:N2	22:DA:1557:C:C2	2.84	0.45
22:DA:1537:G:H2'	22:DA:1537:G:N3	2.31	0.45
22:DA:1661:G:C5	22:DA:1662:U:C5	3.05	0.45
22:DA:1957:C:O2'	22:DA:1985:C:H1'	2.15	0.45
22:DA:2201:G:C5	22:DA:2202:U:C5	3.05	0.45
22:DA:2837:A:H2'	22:DA:2838:G:H8	1.74	0.45
22:DA:2869:G:C8	22:DA:2870:C:C5	3.04	0.45
22:DA:2869:G:H2'	22:DA:2870:C:C6	2.52	0.45
22:DA:2881:U:O2'	22:DA:2882:A:C5'	2.64	0.45
24:DC:131:MET:HG2	24:DC:134:ILE:HD11	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DD:51:THR:HG21	25:DD:76:GLY:HA3	1.91	0.45
58:DF:131:VAL:C	58:DF:133:GLU:N	2.74	0.45
58:DF:174:PHE:CG	58:DF:175:PRO:HD2	2.52	0.45
28:DG:117:PRO:O	28:DG:118:ALA:C	2.60	0.45
32:DK:13:ASN:HD21	32:DK:96:GLY:CA	2.29	0.45
34:DM:8:LYS:HA	34:DM:8:LYS:CE	2.38	0.45
36:DO:82:ALA:HB3	36:DO:115:LEU:HD11	1.97	0.45
38:DQ:63:ARG:O	38:DQ:64:ILE:C	2.59	0.45
40:DS:29:VAL:HG13	40:DS:55:ILE:HD11	1.95	0.45
41:DT:62:VAL:HG12	41:DT:63:VAL:H	1.82	0.45
43:DV:21:ARG:NH2	43:DV:87:GLN:O	2.49	0.45
44:DW:37:VAL:CG1	44:DW:55:ASP:OD2	2.64	0.45
44:DW:54:ARG:C	44:DW:56:HIS:H	2.24	0.45
46:DY:56:LEU:N	46:DY:56:LEU:HD22	2.31	0.45
1:AA:377:G:C5'	16:AP:5:ARG:HH12	2.30	0.45
1:AA:501:C:H1'	1:AA:549:C:H1'	1.99	0.45
1:AA:644:U:O2'	1:AA:645:G:H5'	2.17	0.45
1:AA:715:A:H2'	1:AA:716:A:C8	2.52	0.45
1:AA:978:A:OP2	1:AA:1362:A:N7	2.50	0.45
1:AA:1160:G:O2'	1:AA:1161:C:H6	2.00	0.45
1:AA:1416:G:C2'	1:AA:1417:G:H5'	2.46	0.45
1:AA:1449:C:C2'	1:AA:1450:U:H5'	2.46	0.45
1:AA:1506:U:H3'	62:AA:1803:HOH:O	2.15	0.45
2:AB:15:PHE:CD1	2:AB:16:GLY:N	2.85	0.45
2:AB:59:ILE:CD1	2:AB:60:ALA:N	2.73	0.45
3:AC:99:GLN:O	3:AC:100:ILE:HB	2.16	0.45
3:AC:149:LYS:HG3	3:AC:149:LYS:O	2.17	0.45
3:AC:154:GLY:O	3:AC:155:ARG:C	2.60	0.45
10:AJ:52:LEU:HD23	10:AJ:62:ARG:HG3	1.94	0.45
12:AL:73:LEU:HD21	12:AL:103:CYS:SG	2.57	0.45
14:AN:58:ARG:HH11	14:AN:58:ARG:HG2	1.80	0.45
16:AP:42:ILE:HG22	16:AP:43:ALA:N	2.31	0.45
22:BA:181:A:H2'	22:BA:182:A:C8	2.52	0.45
22:BA:360:U:C4	22:BA:361:G:C6	3.04	0.45
22:BA:657:U:O2'	22:BA:658:U:H5'	2.16	0.45
22:BA:963:U:H2'	22:BA:964:C:C6	2.52	0.45
22:BA:1189:A:OP1	39:BR:82:HIS:HD2	1.99	0.45
22:BA:1294:U:C4	22:BA:1295:C:C5	3.04	0.45
22:BA:1445:G:H2'	22:BA:1446:C:C6	2.52	0.45
22:BA:1487:U:N3	22:BA:1503:A:C2	2.84	0.45
22:BA:2144:G:H3'	22:BA:2144:G:N3	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2226:C:H6	22:BA:2226:C:O5'	1.99	0.45
22:BA:2838:G:H2'	22:BA:2839:G:O4'	2.17	0.45
26:BE:75:SER:OG	26:BE:77:ILE:HG23	2.16	0.45
26:BE:147:LEU:O	26:BE:148:ILE:C	2.59	0.45
27:BF:35:LEU:HD12	27:BF:35:LEU:O	2.17	0.45
28:BG:10:VAL:HB	28:BG:14:VAL:HG21	1.99	0.45
28:BG:90:GLY:O	28:BG:91:VAL:C	2.59	0.45
29:BH:27:ARG:O	29:BH:28:ASN:CB	2.65	0.45
29:BH:67:ALA:HA	29:BH:138:VAL:CG1	2.47	0.45
31:BJ:7:LYS:HA	31:BJ:8:PRO:HD3	1.81	0.45
33:BL:29:LYS:O	33:BL:30:THR:HG23	2.16	0.45
33:BL:112:LEU:HD12	33:BL:130:GLY:HA3	1.98	0.45
34:BM:6:ARG:HG2	34:BM:7:THR:N	2.31	0.45
34:BM:32:GLY:HA3	34:BM:131:VAL:CG2	2.47	0.45
35:BN:31:HIS:O	35:BN:33:ILE:HD12	2.17	0.45
36:BO:66:GLY:O	36:BO:102:ARG:NH2	2.49	0.45
39:BR:39:LEU:HD23	39:BR:39:LEU:N	2.32	0.45
39:BR:41:ILE:O	39:BR:46:GLU:HB2	2.17	0.45
41:BT:39:THR:C	41:BT:41:ALA:N	2.74	0.45
42:BU:10:VAL:HG13	42:BU:24:VAL:HG23	1.98	0.45
42:BU:12:VAL:CG1	42:BU:13:LEU:N	2.80	0.45
45:BX:38:TRP:HB2	45:BX:45:PHE:CE2	2.44	0.45
46:BY:5:GLU:O	46:BY:8:GLU:CB	2.60	0.45
47:BZ:8:GLN:O	47:BZ:10:ARG:N	2.49	0.45
51:B3:27:ASN:O	51:B3:35:LYS:NZ	2.43	0.45
53:CA:16:A:C6	53:CA:17:U:C5	3.05	0.45
53:CA:428:G:C4	53:CA:430:A:C5	3.04	0.45
53:CA:671:G:C6	53:CA:672:U:N3	2.84	0.45
53:CA:743:A:C6	53:CA:744:C:C4	3.05	0.45
53:CA:858:G:N7	53:CA:869:G:N7	2.65	0.45
53:CA:934:C:C5	53:CA:1344:C:C2	3.05	0.45
53:CA:937:A:N6	53:CA:1345:U:O4	2.46	0.45
53:CA:1250:A:N6	53:CA:1251:A:C6	2.84	0.45
53:CA:1382:C:O2'	53:CA:1383:C:C5'	2.62	0.45
2:CB:184:ALA:HB3	2:CB:195:VAL:HG21	1.98	0.45
10:CJ:40:ILE:HB	10:CJ:73:LEU:HD12	1.99	0.45
15:CO:11:VAL:O	15:CO:15:GLY:CA	2.65	0.45
18:CR:19:GLU:CG	18:CR:20:ILE:N	2.80	0.45
19:CS:11:ASP:O	19:CS:14:LEU:HG	2.16	0.45
21:CU:24:LYS:CG	21:CU:25:ALA:N	2.52	0.45
22:DA:255:A:H2'	22:DA:256:A:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:301:G:C8	22:DA:334:C:O2	2.69	0.45
22:DA:497:A:H2'	22:DA:498:G:O4'	2.16	0.45
22:DA:559:G:C2'	22:DA:560:C:H5'	2.45	0.45
22:DA:574:A:H2	22:DA:2032:G:O2'	1.98	0.45
22:DA:663:G:C6	22:DA:664:G:C5	3.04	0.45
22:DA:999:U:C2'	22:DA:1000:A:C5'	2.90	0.45
22:DA:1036:G:C5	22:DA:1120:G:C6	3.05	0.45
22:DA:1327:A:C2	22:DA:1328:A:H1'	2.50	0.45
22:DA:1512:C:O2'	22:DA:1513:U:H5'	2.16	0.45
22:DA:1515:A:H5'	22:DA:1557:C:C5'	2.46	0.45
22:DA:1665:A:C2'	22:DA:1666:G:H5'	2.47	0.45
22:DA:1731:G:C2	22:DA:1733:G:C5	3.04	0.45
22:DA:1857:G:N3	22:DA:1884:G:C2	2.84	0.45
22:DA:1993:U:H4'	25:DD:133:THR:HG22	1.99	0.45
22:DA:2058:A:H5''	22:DA:2059:A:OP2	2.17	0.45
22:DA:2073:C:O2'	22:DA:2074:U:H5'	2.16	0.45
22:DA:2214:C:C2	22:DA:2215:C:C5	3.05	0.45
22:DA:2376:A:C2	36:DO:99:TYR:CE2	3.05	0.45
22:DA:2642:G:C2	22:DA:2773:C:C2	3.05	0.45
22:DA:2820:A:O2'	35:DN:3:HIS:CD2	2.69	0.45
57:DB:16:G:C6	57:DB:69:G:C4	3.04	0.45
57:DB:24:G:C1'	57:DB:27:C:N4	2.64	0.45
24:DC:45:ASN:C	24:DC:47:ARG:H	2.23	0.45
24:DC:243:PRO:O	24:DC:244:VAL:HG13	2.16	0.45
25:DD:186:LEU:HD21	37:DP:3:ILE:HD11	1.98	0.45
26:DE:31:VAL:HG11	26:DE:100:MET:O	2.16	0.45
58:DF:11:VAL:HG22	58:DF:171:ALA:HA	1.99	0.45
58:DF:52:ALA:HA	58:DF:55:ASP:HB2	1.99	0.45
58:DF:122:ASP:CB	58:DF:126:ASN:ND2	2.79	0.45
30:DI:90:GLY:O	30:DI:92:PRO:HD3	2.17	0.45
33:DL:3:LEU:O	33:DL:6:LEU:HB2	2.16	0.45
34:DM:33:LEU:HD12	34:DM:117:PHE:CD2	2.51	0.45
34:DM:73:ILE:HG12	34:DM:93:VAL:CG1	2.46	0.45
36:DO:39:VAL:HB	36:DO:49:VAL:H	1.81	0.45
36:DO:62:LEU:C	36:DO:62:LEU:HD13	2.42	0.45
39:DR:22:LEU:HD23	39:DR:22:LEU:N	2.31	0.45
40:DS:4:ILE:C	40:DS:4:ILE:HD12	2.41	0.45
40:DS:29:VAL:HG23	40:DS:69:LEU:O	2.17	0.45
42:DU:86:PHE:HB2	42:DU:92:VAL:HG22	1.99	0.45
42:DU:92:VAL:CG2	42:DU:101:THR:HG21	2.46	0.45
46:DY:45:GLN:C	46:DY:47:ARG:H	2.24	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:D0:12:ARG:HD2	48:D0:16:ARG:NH2	2.31	0.45
51:D3:44:ARG:N	51:D3:45:PRO:HD2	2.32	0.45
1:AA:423:G:O2'	1:AA:424:G:C4'	2.65	0.45
1:AA:537:G:C5'	12:AL:109:ARG:HH12	2.25	0.45
1:AA:556:C:C2'	1:AA:557:G:H5'	2.46	0.45
1:AA:792:A:N3	1:AA:794:A:C5	2.85	0.45
3:AC:5:HIS:CD2	3:AC:8:GLY:H	2.35	0.45
3:AC:22:PHE:CD2	3:AC:23:ALA:N	2.84	0.45
4:AD:117:VAL:HA	4:AD:122:ILE:CD1	2.40	0.45
6:AF:72:ASP:HA	6:AF:75:GLU:HG3	1.99	0.45
7:AG:110:ARG:HD3	7:AG:112:ASP:CG	2.41	0.45
12:AL:26:CYS:HB2	12:AL:27:PRO:CD	2.47	0.45
12:AL:43:LYS:NZ	12:AL:44:PRO:CD	2.77	0.45
14:AN:5:MET:HA	14:AN:8:ARG:HD2	1.99	0.45
15:AO:72:LYS:HE2	15:AO:72:LYS:HA	1.98	0.45
17:AQ:49:ASN:O	17:AQ:51:GLU:N	2.50	0.45
19:AS:40:PHE:CB	19:AS:42:ASN:ND2	2.79	0.45
22:BA:142:A:O2'	22:BA:143:C:O5'	2.35	0.45
22:BA:345:A:O2'	22:BA:347:A:N7	2.46	0.45
22:BA:729:G:N3	22:BA:729:G:C2'	2.76	0.45
22:BA:1490:A:C8	24:BC:73:ILE:CD1	3.00	0.45
22:BA:1947:C:C2	22:BA:1960:A:C2	3.05	0.45
22:BA:2029:G:H2'	22:BA:2031:A:OP1	2.17	0.45
22:BA:2548:U:C2'	22:BA:2549:G:O5'	2.64	0.45
22:BA:2703:C:O5'	22:BA:2703:C:H6	1.99	0.45
22:BA:2714:G:P	62:BA:3541:HOH:O	2.74	0.45
22:BA:2812:G:H2'	22:BA:2813:A:O4'	2.17	0.45
22:BA:2832:U:O2'	22:BA:2833:U:P	2.75	0.45
22:BA:2874:C:H2'	22:BA:2875:C:C6	2.51	0.45
23:BB:2:G:C2	23:BB:119:A:N3	2.85	0.45
23:BB:78:A:C2	23:BB:99:A:C4	3.04	0.45
24:BC:141:HIS:HB3	24:BC:142:ASN:H	1.21	0.45
25:BD:93:GLY:O	25:BD:95:SER:N	2.49	0.45
27:BF:135:ILE:C	27:BF:137:PHE:N	2.71	0.45
28:BG:25:ILE:HD12	28:BG:74:MET:HB2	1.98	0.45
29:BH:31:VAL:HG12	29:BH:36:ALA:O	2.17	0.45
38:BQ:13:HIS:HD2	38:BQ:31:TYR:CZ	2.35	0.45
40:BS:2:GLU:O	40:BS:3:THR:O	2.35	0.45
40:BS:86:MET:CG	40:BS:88:ARG:HD2	2.47	0.45
44:BW:44:PHE:O	44:BW:78:PHE:HA	2.16	0.45
49:B1:7:LYS:HE3	51:B3:33:THR:HG21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:517:G:C6	53:CA:531:U:H1'	2.52	0.45
53:CA:853:C:C4	53:CA:854:U:C5	3.05	0.45
53:CA:1026:G:H1	53:CA:1036:A:H61	1.62	0.45
53:CA:1281:C:H5'	53:CA:1282:C:H5	1.81	0.45
53:CA:1343:G:C5	53:CA:1344:C:C5	3.05	0.45
53:CA:1429:A:C2'	53:CA:1430:A:H5'	2.47	0.45
53:CA:1467:C:H2'	53:CA:1468:A:H8	1.76	0.45
54:CG:116:ALA:HA	54:CG:120:ALA:CB	2.47	0.45
55:CM:11:HIS:HA	55:CM:44:ILE:HB	1.99	0.45
55:CM:12:LYS:HB3	55:CM:17:ALA:CB	2.44	0.45
15:CO:28:VAL:O	15:CO:29:ALA:C	2.58	0.45
15:CO:69:LEU:CD1	15:CO:77:TYR:CA	2.95	0.45
17:CQ:19:SER:CB	17:CQ:70:LYS:NZ	2.73	0.45
22:DA:136:G:H2'	22:DA:137:U:C6	2.50	0.45
22:DA:195:A:H2'	22:DA:198:C:N4	2.32	0.45
22:DA:352:A:C6	22:DA:353:C:C2	3.05	0.45
22:DA:561:G:H2'	22:DA:562:U:C5'	2.46	0.45
22:DA:606:U:HO2'	22:DA:607:U:C4'	2.30	0.45
22:DA:777:G:C2	22:DA:778:G:C8	3.04	0.45
22:DA:833:A:OP2	33:DL:39:LYS:NZ	2.50	0.45
22:DA:946:C:O2'	22:DA:947:A:H8	1.78	0.45
22:DA:1168:G:C2	22:DA:1182:G:C2	3.04	0.45
22:DA:1206:G:H2'	22:DA:1207:C:C6	2.52	0.45
22:DA:1264:A:C6	22:DA:1265:A:N6	2.85	0.45
22:DA:1398:C:O2'	22:DA:1399:C:C6	2.70	0.45
22:DA:2024:G:N2	22:DA:2040:G:H1'	2.32	0.45
22:DA:2200:C:N4	22:DA:2224:G:N2	2.63	0.45
22:DA:2299:U:O2'	22:DA:2300:C:C6	2.64	0.45
22:DA:2592:G:C6	22:DA:2593:U:C4	3.05	0.45
22:DA:2619:C:H5'	25:DD:157:LYS:CG	2.46	0.45
22:DA:2865:U:C5	22:DA:2866:U:N3	2.84	0.45
57:DB:16:G:O2'	57:DB:17:C:C5'	2.62	0.45
57:DB:110:C:H2'	57:DB:111:U:C6	2.52	0.45
24:DC:128:THR:CG2	24:DC:188:ARG:CB	2.88	0.45
24:DC:131:MET:HE1	24:DC:183:VAL:HG11	1.99	0.45
24:DC:159:THR:N	24:DC:194:VAL:CG1	2.80	0.45
25:DD:169:ARG:C	25:DD:170:VAL:HG22	2.42	0.45
26:DE:122:GLU:O	26:DE:123:LYS:HB3	2.17	0.45
26:DE:124:PHE:HB3	26:DE:189:THR:HG22	1.99	0.45
58:DF:121:PHE:O	58:DF:122:ASP:CG	2.59	0.45
28:DG:162:ARG:HG3	28:DG:166:GLU:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:66:ASN:O	29:DH:67:ALA:HB3	2.17	0.45
29:DH:132:PHE:HZ	29:DH:134:VAL:CB	2.24	0.45
30:DI:54:ILE:HG23	30:DI:70:THR:HG21	1.98	0.45
30:DI:63:ASP:O	30:DI:64:ARG:HB2	2.15	0.45
31:DJ:25:LEU:C	31:DJ:27:ARG:H	2.24	0.45
31:DJ:27:ARG:O	31:DJ:30:THR:HG22	2.16	0.45
32:DK:34:GLY:O	32:DK:35:VAL:HG22	2.16	0.45
33:DL:119:PRO:HB3	33:DL:139:GLY:C	2.41	0.45
37:DP:24:THR:HA	37:DP:44:GLY:O	2.16	0.45
37:DP:103:THR:HG22	37:DP:104:GLY:N	2.31	0.45
38:DQ:57:ARG:CZ	38:DQ:92:LYS:HE2	2.44	0.45
38:DQ:64:ILE:CD1	38:DQ:95:ALA:CB	2.93	0.45
41:DT:50:LEU:HD22	41:DT:51:PHE:HD1	1.81	0.45
42:DU:51:LEU:O	42:DU:52:ASN:HB2	2.17	0.45
42:DU:60:LYS:N	42:DU:60:LYS:HD2	2.31	0.45
44:DW:55:ASP:C	44:DW:56:HIS:CD2	2.95	0.45
45:DX:1:SER:O	45:DX:2:ARG:C	2.60	0.45
1:AA:269:C:H2'	1:AA:270:A:H8	1.79	0.45
1:AA:415:A:O2'	1:AA:416:G:H5'	2.17	0.45
1:AA:429:U:O4'	1:AA:430:A:H5''	2.17	0.45
1:AA:754:C:H3'	1:AA:755:G:C5'	2.46	0.45
1:AA:1033:G:H2'	1:AA:1033:G:N3	2.32	0.45
1:AA:1053:G:C6	1:AA:1199:U:C2	3.05	0.45
1:AA:1160:G:O6	1:AA:1181:G:C5	2.70	0.45
2:AB:27:LYS:HB3	2:AB:28:PRO:HD3	1.98	0.45
2:AB:153:MET:SD	2:AB:155:GLY:O	2.75	0.45
2:AB:191:ASP:HA	2:AB:192:PRO:HD2	1.74	0.45
3:AC:33:ASP:CG	14:AN:64:ARG:HG2	2.42	0.45
3:AC:71:ARG:HG2	3:AC:74:ILE:HB	1.99	0.45
4:AD:99:ASN:C	4:AD:101:VAL:H	2.25	0.45
5:AE:60:GLN:C	5:AE:62:ALA:N	2.73	0.45
7:AG:37:THR:O	7:AG:40:SER:HB2	2.16	0.45
7:AG:88:VAL:HG22	7:AG:89:GLU:N	2.32	0.45
10:AJ:88:MET:HB3	10:AJ:89:ARG:HH12	1.81	0.45
11:AK:116:PRO:C	11:AK:118:ASN:H	2.25	0.45
19:AS:14:LEU:HD13	19:AS:32:THR:HG21	1.98	0.45
22:BA:137:U:HO2'	22:BA:138:U:P	2.39	0.45
22:BA:143:C:O2'	22:BA:144:A:P	2.75	0.45
22:BA:747:U:C4	22:BA:2613:U:C4	3.05	0.45
22:BA:849:A:H2'	22:BA:850:U:C6	2.52	0.45
22:BA:919:U:C6	22:BA:919:U:C4'	2.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1048:A:OP2	22:BA:1110:G:N2	2.48	0.45
22:BA:1301:A:N3	22:BA:1301:A:H2'	2.32	0.45
22:BA:1419:A:N7	22:BA:1421:G:C5	2.85	0.45
22:BA:1684:G:H2'	22:BA:1685:C:H6	1.79	0.45
22:BA:1778:U:H2'	22:BA:1784:A:H62	1.81	0.45
22:BA:1797:G:C6	22:BA:1798:U:C4	3.04	0.45
22:BA:2194:U:C4	22:BA:2195:U:C4	3.05	0.45
22:BA:2486:C:C2'	22:BA:2487:G:O5'	2.65	0.45
22:BA:2576:G:C8	22:BA:2580:U:O4	2.70	0.45
22:BA:2742:G:OP2	52:B4:24:ARG:NH1	2.50	0.45
23:BB:66:A:C4'	23:BB:67:G:OP1	2.60	0.45
24:BC:80:LEU:HD11	24:BC:109:LEU:CG	2.44	0.45
24:BC:163:ILE:HD13	24:BC:173:LEU:HD11	1.98	0.45
28:BG:33:THR:HA	28:BG:34:ARG:HH11	1.81	0.45
29:BH:58:LEU:HA	29:BH:61:VAL:HB	1.99	0.45
32:BK:12:ASP:C	32:BK:100:PHE:HE1	2.24	0.45
33:BL:14:LYS:CG	33:BL:15:ALA:N	2.78	0.45
33:BL:89:VAL:HA	33:BL:121:THR:HG23	1.99	0.45
35:BN:50:PRO:O	35:BN:51:LEU:C	2.60	0.45
39:BR:79:ARG:NH1	62:BR:201:HOH:O	2.34	0.45
40:BS:35:ILE:HG12	40:BS:35:ILE:H	1.62	0.45
45:BX:70:LEU:HD23	45:BX:73:ARG:HH11	1.82	0.45
47:BZ:2:LYS:C	47:BZ:3:THR:HG23	2.42	0.45
49:B1:39:ASP:O	49:B1:43:ARG:N	2.50	0.45
53:CA:83:C:O2	53:CA:83:C:H2'	2.16	0.45
53:CA:276:G:O2'	53:CA:277:C:H5'	2.15	0.45
53:CA:369:G:H2'	53:CA:370:C:C6	2.51	0.45
53:CA:423:G:H2'	53:CA:423:G:N3	2.32	0.45
53:CA:552:U:H2'	53:CA:553:A:H8	1.82	0.45
53:CA:976:G:O5'	53:CA:1358:U:O2'	2.35	0.45
53:CA:1006:G:N3	53:CA:1006:G:H2'	2.32	0.45
53:CA:1031:C:H5'	53:CA:1032:G:C5'	2.44	0.45
53:CA:1186:G:C4'	9:CI:111:GLU:OE1	2.64	0.45
53:CA:1297:G:H5'	53:CA:1299:A:N7	2.32	0.45
2:CB:53:LEU:O	2:CB:57:ASN:HB2	2.17	0.45
4:CD:109:THR:HG22	4:CD:110:ARG:N	2.31	0.45
54:CG:10:LYS:N	54:CG:10:LYS:CE	2.79	0.45
11:CK:70:ALA:HB1	11:CK:104:PHE:CZ	2.52	0.45
11:CK:111:ASP:HB3	21:CU:3:ILE:N	2.31	0.45
17:CQ:19:SER:HB3	17:CQ:70:LYS:HZ2	1.78	0.45
17:CQ:20:ILE:HD11	17:CQ:22:VAL:HG23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:117:G:C4'	22:DA:126:A:H2	2.28	0.45
22:DA:223:A:N6	22:DA:422:A:C6	2.84	0.45
22:DA:244:A:C2'	22:DA:245:G:O4'	2.64	0.45
22:DA:335:C:O2'	22:DA:336:C:O5'	2.35	0.45
22:DA:977:G:C2	22:DA:978:G:C8	3.05	0.45
22:DA:992:C:H2'	22:DA:993:G:H8	1.82	0.45
22:DA:1060:U:C4'	22:DA:1061:U:C2'	2.88	0.45
22:DA:1156:A:C8	38:DQ:50:ARG:HG2	2.51	0.45
22:DA:1346:G:O2'	22:DA:1347:A:P	2.75	0.45
22:DA:1370:C:H2'	22:DA:1371:G:C8	2.52	0.45
22:DA:1425:G:H8	22:DA:1425:G:O5'	2.00	0.45
22:DA:1455:G:N7	35:DN:64:ARG:NH1	2.64	0.45
22:DA:1613:G:C2	22:DA:1617:C:N3	2.84	0.45
22:DA:1809:A:H2'	22:DA:1810:A:H8	1.79	0.45
22:DA:1853:A:O2'	22:DA:2234:G:H5'	2.17	0.45
22:DA:1925:C:H6	22:DA:1925:C:H3'	1.82	0.45
22:DA:1957:C:H1'	22:DA:1985:C:O2'	2.16	0.45
22:DA:2106:U:H2'	22:DA:2107:G:O4'	2.16	0.45
22:DA:2415:G:C5	22:DA:2416:C:C4	3.05	0.45
22:DA:2511:U:H2'	22:DA:2512:C:O4'	2.17	0.45
22:DA:2632:A:C2'	22:DA:2633:G:H5'	2.47	0.45
22:DA:2886:A:N7	48:D0:39:ARG:NE	2.65	0.45
24:DC:69:ASN:O	24:DC:70:LYS:C	2.59	0.45
24:DC:77:VAL:HG23	24:DC:112:GLY:N	2.29	0.45
58:DF:46:LYS:HE2	58:DF:83:PRO:HG3	1.98	0.45
31:DJ:16:TYR:HB2	31:DJ:54:ILE:CD1	2.47	0.45
31:DJ:36:LEU:HD13	31:DJ:36:LEU:HA	1.88	0.45
31:DJ:51:GLY:CA	31:DJ:121:LYS:HE3	2.47	0.45
32:DK:28:SER:O	32:DK:29:HIS:CB	2.65	0.45
33:DL:83:ALA:CB	33:DL:117:THR:HB	2.47	0.45
37:DP:47:ILE:HA	37:DP:96:LEU:HB2	1.97	0.45
40:DS:23:LEU:O	40:DS:23:LEU:HD23	2.16	0.45
40:DS:71:VAL:O	40:DS:71:VAL:CG1	2.61	0.45
42:DU:20:LYS:HD3	42:DU:20:LYS:C	2.42	0.45
42:DU:32:LYS:HE2	42:DU:65:GLN:CD	2.41	0.45
42:DU:93:ARG:H	42:DU:101:THR:HG23	1.82	0.45
46:DY:19:LEU:HA	46:DY:22:LEU:CB	2.44	0.45
46:DY:28:LEU:O	46:DY:28:LEU:HD22	2.16	0.45
49:D1:16:THR:HG21	49:D1:41:VAL:HB	1.99	0.45
1:AA:77:A:N6	1:AA:90:C:C4	2.84	0.45
1:AA:384:G:H2'	1:AA:385:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:389:A:C6	1:AA:390:U:H1'	2.52	0.45
1:AA:397:A:H3'	1:AA:397:A:N3	2.31	0.45
1:AA:471:U:O2'	1:AA:472:U:H5'	2.17	0.45
1:AA:687:A:N7	1:AA:701:U:C5	2.84	0.45
1:AA:723:U:H5''	21:AU:48:LYS:CG	2.41	0.45
1:AA:807:A:H2'	1:AA:808:C:H6	1.81	0.45
1:AA:961:U:OP2	1:AA:1223:C:H1'	2.17	0.45
1:AA:983:A:N3	1:AA:983:A:C2'	2.79	0.45
1:AA:1494:G:C6	1:AA:1495:U:C4	3.05	0.45
1:AA:1501:C:C5	1:AA:1504:G:C5	3.04	0.45
2:AB:202:ASN:ND2	2:AB:205:ALA:CB	2.75	0.45
5:AE:132:PRO:O	5:AE:136:VAL:CG1	2.64	0.45
14:AN:40:ARG:NH1	14:AN:44:VAL:CG1	2.66	0.45
16:AP:17:TYR:N	16:AP:17:TYR:CD1	2.84	0.45
22:BA:196:A:C2'	22:BA:805:G:O6	2.57	0.45
22:BA:335:C:O5'	22:BA:335:C:C6	2.65	0.45
22:BA:528:A:C2	22:BA:2043:C:H4'	2.51	0.45
22:BA:544:C:C3'	22:BA:545:U:O2	2.64	0.45
22:BA:729:G:C6	24:BC:206:LYS:HB2	2.52	0.45
22:BA:1131:G:C8	31:BJ:77:HIS:CE1	3.05	0.45
22:BA:1176:U:H2'	22:BA:1177:G:N9	2.31	0.45
22:BA:1278:C:O2'	22:BA:1279:G:H5'	2.17	0.45
22:BA:1288:G:C5	22:BA:1327:A:C2	3.05	0.45
22:BA:1303:G:O2'	22:BA:1304:A:H5'	2.17	0.45
22:BA:1348:C:C2'	22:BA:1349:C:O5'	2.65	0.45
22:BA:2316:G:H2'	22:BA:2317:A:H8	1.81	0.45
22:BA:2373:G:H1	22:BA:2380:C:H42	1.64	0.45
22:BA:2555:U:C6	22:BA:2556:C:C6	3.05	0.45
22:BA:2680:U:OP1	25:BD:114:LYS:HE2	2.16	0.45
22:BA:2860:A:H8	22:BA:2860:A:O5'	1.99	0.45
24:BC:15:VAL:HA	24:BC:203:VAL:CG1	2.47	0.45
24:BC:211:ARG:C	24:BC:213:ARG:H	2.25	0.45
25:BD:52:THR:HG23	25:BD:53:GLY:N	2.32	0.45
25:BD:122:VAL:O	25:BD:126:ASN:HA	2.16	0.45
26:BE:44:ARG:HG3	26:BE:44:ARG:NH2	2.31	0.45
28:BG:61:TRP:HA	28:BG:61:TRP:CE3	2.52	0.45
29:BH:14:SER:O	29:BH:16:GLY:N	2.50	0.45
30:BI:52:LEU:HD12	30:BI:52:LEU:N	2.32	0.45
32:BK:19:VAL:HG13	32:BK:41:ILE:HG12	1.99	0.45
32:BK:113:MET:C	32:BK:115:ILE:N	2.74	0.45
34:BM:10:ARG:NH1	34:BM:89:VAL:H	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BO:11:ALA:HB2	36:BO:96:GLY:N	2.32	0.45
38:BQ:51:GLN:HE21	38:BQ:55:GLN:HE21	1.65	0.45
38:BQ:94:LEU:O	38:BQ:94:LEU:HD13	2.16	0.45
40:BS:86:MET:HG3	40:BS:88:ARG:HD2	1.99	0.45
42:BU:73:ASN:ND2	42:BU:75:ALA:HB3	2.31	0.45
42:BU:73:ASN:O	42:BU:75:ALA:N	2.47	0.45
53:CA:158:G:C6	53:CA:164:G:C5	3.05	0.45
53:CA:254:G:C2	53:CA:273:U:C2	3.05	0.45
53:CA:632:U:H3'	53:CA:633:G:H5'	1.99	0.45
53:CA:705:G:H2'	53:CA:706:A:H8	1.81	0.45
53:CA:764:C:N4	53:CA:812:G:H1	2.14	0.45
53:CA:790:A:C6	53:CA:791:G:C6	3.04	0.45
53:CA:948:C:C6	55:CM:104:ASN:ND2	2.84	0.45
53:CA:962:C:O2'	53:CA:963:G:O5'	2.35	0.45
53:CA:1013:G:H22	53:CA:1015:G:H3'	1.81	0.45
53:CA:1052:U:H3'	53:CA:1053:G:C5'	2.44	0.45
53:CA:1071:C:O2	53:CA:1072:G:C8	2.70	0.45
53:CA:1102:A:H5''	53:CA:1102:A:C8	2.52	0.45
53:CA:1133:G:C2	53:CA:1142:G:C5	3.04	0.45
53:CA:1244:G:C6	53:CA:1245:C:C4	3.04	0.45
53:CA:1296:C:H1'	53:CA:1302:C:C2	2.52	0.45
53:CA:1406:U:H1'	53:CA:1518:A:H4'	1.98	0.45
2:CB:21:TYR:N	2:CB:21:TYR:CD1	2.85	0.45
2:CB:151:LYS:HG3	2:CB:152:ASP:OD1	2.16	0.45
3:CC:85:LYS:O	3:CC:89:VAL:HG21	2.17	0.45
4:CD:101:VAL:HG21	4:CD:122:ILE:HG13	1.98	0.45
4:CD:127:ARG:HH11	4:CD:127:ARG:HG2	1.81	0.45
6:CF:68:GLN:HG2	6:CF:69:GLU:H	1.80	0.45
6:CF:81:ASN:O	6:CF:83:ALA:N	2.50	0.45
54:CG:42:VAL:C	54:CG:44:SER:H	2.25	0.45
8:CH:58:LEU:HD23	8:CH:58:LEU:C	2.42	0.45
12:CL:98:ARG:CB	12:CL:116:TYR:HA	2.47	0.45
19:CS:20:LYS:NZ	19:CS:27:LYS:HD3	2.32	0.45
22:DA:64:A:O2'	41:DT:69:ARG:HG2	2.16	0.45
22:DA:410:G:N1	22:DA:2407:A:N6	2.64	0.45
22:DA:588:U:H6	22:DA:588:U:O5'	2.00	0.45
22:DA:599:A:C5	22:DA:600:G:N7	2.85	0.45
22:DA:696:G:N1	22:DA:767:U:C2	2.85	0.45
22:DA:850:U:O2'	47:DZ:46:MET:HE3	2.16	0.45
22:DA:1409:U:O5'	22:DA:1409:U:H6	1.99	0.45
22:DA:1576:U:H2'	22:DA:1577:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1813:G:H21	24:DC:50:THR:HG23	1.82	0.45
22:DA:1814:G:C6	22:DA:1815:A:C6	3.05	0.45
22:DA:2013:A:C6	22:DA:2014:A:C2	3.05	0.45
22:DA:2296:U:C5	36:DO:9:ARG:NH2	2.77	0.45
22:DA:2298:A:O2'	22:DA:2299:U:O4'	2.35	0.45
22:DA:2642:G:N2	22:DA:2773:C:C2	2.85	0.45
22:DA:2721:A:H2'	22:DA:2722:G:H8	1.81	0.45
22:DA:2722:G:C2	22:DA:2723:C:C2	3.04	0.45
57:DB:35:C:H3'	57:DB:36:C:H5''	1.97	0.45
57:DB:108:A:O2'	57:DB:109:A:P	2.75	0.45
24:DC:173:LEU:O	24:DC:180:MET:HA	2.16	0.45
24:DC:239:PHE:HE1	24:DC:241:LYS:O	2.00	0.45
26:DE:98:LYS:O	26:DE:99:LYS:CB	2.64	0.45
28:DG:7:PRO:O	28:DG:8:VAL:CB	2.64	0.45
30:DI:50:LYS:HA	30:DI:50:LYS:CE	2.45	0.45
31:DJ:43:GLU:O	31:DJ:43:GLU:CG	2.64	0.45
31:DJ:45:THR:C	31:DJ:47:HIS:N	2.71	0.45
34:DM:127:LYS:H	34:DM:127:LYS:HG2	1.57	0.45
35:DN:49:GLU:N	35:DN:50:PRO:CD	2.80	0.45
37:DP:49:ILE:O	37:DP:50:ARG:O	2.35	0.45
37:DP:87:ARG:HG2	37:DP:88:ARG:N	2.32	0.45
38:DQ:60:TRP:CE2	38:DQ:93:ILE:HB	2.52	0.45
38:DQ:108:LEU:O	38:DQ:108:LEU:HD23	2.17	0.45
41:DT:18:GLU:O	41:DT:22:THR:HG23	2.16	0.45
47:DZ:43:ILE:HD12	47:DZ:43:ILE:C	2.42	0.45
1:AA:205:A:H2'	1:AA:206:C:H5'	1.99	0.45
1:AA:443:C:C2'	1:AA:444:G:C5'	2.94	0.45
1:AA:577:G:C8	1:AA:816:A:C6	3.04	0.45
1:AA:579:A:C2	1:AA:763:G:C4	3.05	0.45
1:AA:691:G:H2'	1:AA:692:U:C6	2.51	0.45
1:AA:775:G:C2'	1:AA:776:G:H5'	2.47	0.45
1:AA:973:G:O2'	14:AN:68:ARG:NH2	2.50	0.45
1:AA:1167:A:H8	1:AA:1169:A:N6	2.05	0.45
1:AA:1192:C:C5	1:AA:1193:G:C8	3.05	0.45
2:AB:66:ILE:O	2:AB:67:LEU:CB	2.65	0.45
3:AC:153:SER:CB	3:AC:164:THR:HG22	2.47	0.45
8:AH:93:LYS:CE	8:AH:116:ARG:HH12	2.29	0.45
8:AH:112:ASP:O	8:AH:113:ARG:C	2.59	0.45
9:AI:37:TYR:CD2	9:AI:38:PHE:CD2	3.02	0.45
10:AJ:8:ILE:HG23	10:AJ:100:ILE:HG23	1.98	0.45
12:AL:72:ASN:OD1	12:AL:104:SER:CB	2.65	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AL:72:ASN:OD1	12:AL:104:SER:HB3	2.17	0.45
12:AL:120:ARG:HA	12:AL:121:PRO:HD2	1.76	0.45
13:AM:89:ARG:NH1	13:AM:94:LEU:HB3	2.32	0.45
16:AP:10:GLY:HA3	16:AP:15:PRO:CA	2.46	0.45
20:AT:43:LYS:HZ2	20:AT:86:ALA:HA	1.80	0.45
21:AU:33:ARG:HE	21:AU:34:ARG:HG2	1.81	0.45
22:BA:108:G:H2'	22:BA:109:C:H5'	1.98	0.45
22:BA:300:A:N1	22:BA:333:G:O2'	2.46	0.45
22:BA:550:C:O2	22:BA:550:C:C2'	2.64	0.45
22:BA:686:U:O4	50:B2:12:ARG:CB	2.64	0.45
22:BA:764:A:H3'	22:BA:765:C:H5'	1.98	0.45
22:BA:822:G:H2'	22:BA:823:C:C6	2.52	0.45
22:BA:1181:U:H2'	22:BA:1182:G:C8	2.52	0.45
22:BA:1306:C:H2'	22:BA:1306:C:O2	2.17	0.45
22:BA:1352:U:O2'	22:BA:1353:A:H5'	2.17	0.45
22:BA:1371:G:O2'	22:BA:1372:U:H5'	2.16	0.45
22:BA:1524:G:H2'	22:BA:1525:A:H8	1.81	0.45
22:BA:1587:G:C2	22:BA:1588:G:C8	3.05	0.45
22:BA:1711:A:C2	22:BA:1748:C:C2	3.04	0.45
22:BA:2331:G:N3	22:BA:2336:A:C2	2.85	0.45
22:BA:2510:C:C2'	22:BA:2511:U:O5'	2.65	0.45
22:BA:2870:C:H2'	22:BA:2871:U:O4'	2.16	0.45
25:BD:151:THR:CB	25:BD:152:PRO:CD	2.94	0.45
26:BE:48:THR:C	26:BE:50:ALA:H	2.23	0.45
27:BF:43:ILE:HA	27:BF:82:TYR:OH	2.17	0.45
27:BF:99:PHE:O	27:BF:103:ILE:HG12	2.17	0.45
27:BF:120:SER:O	27:BF:127:TYR:CD1	2.69	0.45
28:BG:38:ASP:OD1	28:BG:38:ASP:N	2.50	0.45
32:BK:113:MET:O	32:BK:115:ILE:N	2.49	0.45
37:BP:7:LEU:HA	37:BP:7:LEU:HD12	1.62	0.45
42:BU:94:PHE:CD1	42:BU:94:PHE:C	2.94	0.45
53:CA:66:A:N3	53:CA:66:A:C2'	2.72	0.45
53:CA:206:C:C6	53:CA:206:C:H3'	2.52	0.45
53:CA:243:A:C2	53:CA:246:A:C8	3.05	0.45
53:CA:346:G:N3	53:CA:346:G:C2'	2.79	0.45
53:CA:369:G:C2	53:CA:370:C:C5	3.05	0.45
53:CA:642:A:O2'	53:CA:643:C:O5'	2.35	0.45
53:CA:671:G:C2	53:CA:672:U:C2	3.04	0.45
53:CA:1184:G:HO2'	53:CA:1185:G:C5'	2.29	0.45
53:CA:1206:G:H2'	53:CA:1207:G:O4'	2.17	0.45
5:CE:95:MET:HB3	5:CE:124:ALA:CB	2.42	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:CG:70:PRO:CB	54:CG:98:LEU:HD12	2.47	0.45
8:CH:97:GLY:O	8:CH:98:LEU:CB	2.65	0.45
10:CJ:80:THR:C	10:CJ:84:VAL:HG22	2.40	0.45
11:CK:104:PHE:CD1	11:CK:104:PHE:N	2.85	0.45
12:CL:85:ARG:HG2	12:CL:86:VAL:H	1.82	0.45
55:CM:82:LEU:HB2	19:CS:73:PHE:CE2	2.52	0.45
56:CP:77:GLU:C	56:CP:79:ASN:N	2.75	0.45
22:DA:80:G:H2'	22:DA:80:G:N3	2.32	0.45
22:DA:118:A:OP2	22:DA:119:A:C3'	2.53	0.45
22:DA:159:G:H1'	22:DA:167:A:N6	2.32	0.45
22:DA:217:A:O2'	22:DA:218:A:H5'	2.16	0.45
22:DA:229:C:O2'	22:DA:230:G:O5'	2.34	0.45
22:DA:303:G:H2'	22:DA:304:U:C6	2.51	0.45
22:DA:311:A:N6	22:DA:330:A:H5''	2.30	0.45
22:DA:335:C:O2'	22:DA:336:C:P	2.74	0.45
22:DA:425:G:C2	22:DA:426:C:C5	3.04	0.45
22:DA:612:G:N2	22:DA:617:G:O6	2.50	0.45
22:DA:1080:A:C4	22:DA:1081:U:C5	3.04	0.45
22:DA:1113:U:HO2'	22:DA:1114:C:H6	1.61	0.45
22:DA:1381:G:C3'	22:DA:1382:G:H5''	2.47	0.45
22:DA:1494:A:C2	22:DA:1495:A:C4	3.05	0.45
22:DA:1675:C:O2'	22:DA:1676:A:H5'	2.17	0.45
22:DA:1800:C:C2	22:DA:1802:A:N7	2.84	0.45
22:DA:1803:A:O2'	22:DA:1804:C:H5'	2.17	0.45
22:DA:2069:G:N2	22:DA:2443:C:C2	2.85	0.45
22:DA:2286:G:H4'	22:DA:2287:A:N9	2.32	0.45
22:DA:2310:C:H42	58:DF:76:PHE:HE1	1.63	0.45
22:DA:2348:U:O2'	22:DA:2349:G:C5'	2.65	0.45
22:DA:2405:G:N2	22:DA:2411:A:N7	2.65	0.45
22:DA:2440:C:C2'	22:DA:2441:U:O5'	2.64	0.45
22:DA:2455:G:C2	22:DA:2498:C:C4	3.05	0.45
22:DA:2477:U:O4	52:D4:10:LEU:HD22	2.17	0.45
22:DA:2508:G:C2	22:DA:2582:G:O6	2.69	0.45
22:DA:2846:G:P	37:DP:51:ASN:HB3	2.57	0.45
22:DA:2895:G:O2'	22:DA:2896:C:C6	2.69	0.45
28:DG:94:ARG:HG2	28:DG:105:SER:H	1.81	0.45
28:DG:94:ARG:O	28:DG:95:ALA:HB2	2.17	0.45
28:DG:105:SER:C	28:DG:106:LEU:HD23	2.42	0.45
31:DJ:56:VAL:CG2	31:DJ:124:VAL:HA	2.47	0.45
33:DL:62:PRO:HG2	51:D3:24:LYS:CB	2.47	0.45
35:DN:9:GLN:O	35:DN:10:LEU:O	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:16:VAL:HA	37:DP:17:PRO:HD3	1.59	0.45
38:DQ:74:SER:O	38:DQ:78:PHE:CB	2.63	0.45
39:DR:48:LYS:H	39:DR:48:LYS:CD	2.15	0.45
40:DS:20:VAL:CG1	40:DS:43:ALA:CB	2.94	0.45
41:DT:34:VAL:O	41:DT:34:VAL:CG1	2.64	0.45
43:DV:56:PHE:C	43:DV:58:SER:N	2.74	0.45
44:DW:49:ASN:HD21	44:DW:80:SER:CA	2.30	0.45
46:DY:1:MET:H3	46:DY:1:MET:CE	2.26	0.45
46:DY:17:GLU:HA	46:DY:20:ASN:CG	2.42	0.45
1:AA:35:G:O2'	12:AL:117:GLY:HA2	2.17	0.45
1:AA:276:G:O3'	17:AQ:44:HIS:HE1	1.99	0.45
1:AA:411:A:N6	1:AA:413:G:H21	2.15	0.45
2:AB:32:GLY:HA3	2:AB:39:ILE:H	1.82	0.45
2:AB:49:PHE:HA	2:AB:52:ALA:CB	2.46	0.45
3:AC:35:ASP:O	3:AC:37:LYS:N	2.47	0.45
3:AC:137:VAL:HG11	3:AC:169:GLU:HB3	1.99	0.45
5:AE:76:ASN:HB3	5:AE:81:GLN:HG3	1.99	0.45
8:AH:30:LYS:HE3	8:AH:30:LYS:CA	2.47	0.45
11:AK:71:ASP:OD1	11:AK:72:ALA:N	2.49	0.45
11:AK:108:ASN:CG	21:AU:6:ARG:CG	2.90	0.45
12:AL:45:ASN:N	12:AL:45:ASN:ND2	2.64	0.45
14:AN:55:SER:HA	14:AN:56:PRO:HD2	1.82	0.45
19:AS:51:HIS:HA	19:AS:55:GLN:O	2.16	0.45
22:BA:411:G:H5''	22:BA:412:A:OP1	2.16	0.45
22:BA:478:A:N6	22:BA:480:A:C6	2.85	0.45
22:BA:1078:U:H3'	22:BA:1078:U:H6	1.81	0.45
22:BA:1142:A:N3	22:BA:1144:A:C8	2.85	0.45
22:BA:1394:U:H4'	22:BA:1603:A:H4'	1.99	0.45
22:BA:1419:A:C6	22:BA:1421:G:C4	3.05	0.45
22:BA:1452:G:H3'	62:BA:3410:HOH:O	2.17	0.45
22:BA:1663:G:N1	22:BA:1998:A:C6	2.85	0.45
22:BA:1778:U:C5	22:BA:1784:A:C4	3.05	0.45
22:BA:1797:G:O3'	24:BC:255:LYS:O	2.34	0.45
22:BA:1816:C:O2'	22:BA:1817:G:P	2.75	0.45
22:BA:2138:G:H2'	22:BA:2138:G:N3	2.32	0.45
22:BA:2279:G:N2	22:BA:2280:G:H1'	2.31	0.45
22:BA:2393:U:C2'	22:BA:2394:C:H5'	2.47	0.45
22:BA:2593:U:H2'	22:BA:2594:C:H6	1.81	0.45
22:BA:2864:G:H2'	22:BA:2865:U:C6	2.52	0.45
22:BA:2887:A:C4	22:BA:2888:C:C6	3.04	0.45
23:BB:78:A:H2'	23:BB:79:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:89:ASN:O	24:BC:90:ILE:HD13	2.17	0.45
24:BC:106:PRO:CD	24:BC:141:HIS:HE1	2.30	0.45
24:BC:211:ARG:HD2	24:BC:211:ARG:HA	1.61	0.45
26:BE:122:GLU:O	26:BE:123:LYS:O	2.34	0.45
27:BF:39:VAL:C	27:BF:41:GLU:H	2.24	0.45
27:BF:128:SER:HA	27:BF:154:THR:HB	1.99	0.45
34:BM:72:PRO:O	34:BM:73:ILE:HB	2.17	0.45
34:BM:78:LEU:C	34:BM:80:VAL:N	2.74	0.45
37:BP:25:VAL:HA	37:BP:85:VAL:O	2.16	0.45
37:BP:50:ARG:HG2	37:BP:57:ALA:C	2.41	0.45
39:BR:58:VAL:HG13	39:BR:102:SER:HB2	1.99	0.45
41:BT:1:MET:C	41:BT:2:ILE:HD13	2.42	0.45
42:BU:6:ARG:O	42:BU:24:VAL:HB	2.16	0.45
43:BV:16:ALA:O	43:BV:17:SER:C	2.60	0.45
44:BW:22:VAL:O	44:BW:23:LYS:C	2.60	0.45
44:BW:37:VAL:CG1	44:BW:55:ASP:C	2.89	0.45
45:BX:39:VAL:CG1	45:BX:46:VAL:HG22	2.47	0.45
53:CA:149:A:H1'	53:CA:1446:A:C2	2.52	0.45
53:CA:412:A:H2	53:CA:413:G:N7	2.15	0.45
53:CA:455:G:C6	53:CA:456:A:C5	3.05	0.45
53:CA:482:A:H2'	53:CA:482:A:N3	2.32	0.45
53:CA:567:G:C2'	53:CA:568:G:O5'	2.64	0.45
53:CA:673:A:H2'	53:CA:674:G:C8	2.52	0.45
53:CA:989:U:C4	53:CA:990:C:C4	3.05	0.45
53:CA:1179:A:N6	53:CA:1180:A:C6	2.84	0.45
53:CA:1202:U:O2'	53:CA:1203:C:O4'	2.34	0.45
53:CA:1215:G:N3	53:CA:1216:A:C8	2.85	0.45
53:CA:1273:C:H2'	53:CA:1274:A:C8	2.52	0.45
53:CA:1526:G:C6	53:CA:1527:U:C4	3.05	0.45
2:CB:57:ASN:O	2:CB:60:ALA:HB3	2.17	0.45
2:CB:185:ILE:HG22	2:CB:199:ILE:CG1	2.44	0.45
4:CD:100:VAL:O	4:CD:101:VAL:C	2.59	0.45
54:CG:4:ARG:HH11	54:CG:4:ARG:HG2	1.82	0.45
9:CI:35:GLU:HA	9:CI:39:GLY:N	2.31	0.45
14:CN:78:LEU:HD12	14:CN:78:LEU:N	2.32	0.45
14:CN:87:ALA:HB2	14:CN:95:LEU:HD23	1.98	0.45
15:CO:24:THR:HG21	15:CO:69:LEU:HB2	1.99	0.45
15:CO:62:ARG:NH2	15:CO:88:ARG:HH21	2.14	0.45
56:CP:71:VAL:C	56:CP:74:LEU:HB2	2.42	0.45
17:CQ:46:HIS:ND1	17:CQ:70:LYS:NZ	2.65	0.45
18:CR:71:ASP:CB	18:CR:72:ARG:HH21	2.29	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:107:G:C5'	22:DA:294:A:OP1	2.65	0.45
22:DA:473:G:N3	22:DA:473:G:H2'	2.32	0.45
22:DA:614:A:C4'	22:DA:616:A:N6	2.74	0.45
22:DA:689:A:N3	22:DA:779:U:H1'	2.32	0.45
22:DA:777:G:O2'	22:DA:778:G:C5'	2.65	0.45
22:DA:803:U:H2'	22:DA:804:A:H5'	1.99	0.45
22:DA:822:G:C5'	62:DA:3360:HOH:O	2.64	0.45
22:DA:923:G:C1'	44:DW:23:LYS:HZ1	2.28	0.45
22:DA:957:C:N4	22:DA:959:A:C6	2.85	0.45
22:DA:1133:A:C8	22:DA:2026:U:H4'	2.51	0.45
22:DA:1216:G:H2'	22:DA:1217:U:H5'	1.98	0.45
22:DA:1343:G:N7	22:DA:1597:A:N6	2.65	0.45
22:DA:1380:G:H1'	22:DA:1569:A:H61	1.82	0.45
22:DA:1419:A:H1'	22:DA:1579:A:N6	2.32	0.45
22:DA:1440:U:H2'	22:DA:1441:G:C8	2.52	0.45
22:DA:1919:A:H2'	22:DA:1920:C:C6	2.43	0.45
22:DA:1973:G:C5	22:DA:1974:C:C4	3.04	0.45
22:DA:2104:C:H6	22:DA:2104:C:OP2	2.00	0.45
22:DA:2209:G:C6	22:DA:2216:G:C6	3.05	0.45
22:DA:2218:G:H2'	22:DA:2219:U:H6	1.82	0.45
22:DA:2331:G:C2'	44:DW:40:ARG:HB3	2.46	0.45
22:DA:2735:G:H2'	22:DA:2736:A:H8	1.80	0.45
22:DA:2878:U:O5'	22:DA:2878:U:H6	2.00	0.45
57:DB:24:G:C1'	57:DB:27:C:H42	2.15	0.45
26:DE:147:LEU:CB	26:DE:186:VAL:HA	2.47	0.45
26:DE:153:LEU:HB2	26:DE:171:ASP:HB3	1.99	0.45
58:DF:19:PHE:O	58:DF:20:ASN:HB3	2.17	0.45
58:DF:41:GLU:O	58:DF:42:ALA:C	2.60	0.45
28:DG:39:ALA:O	28:DG:40:VAL:HG13	2.17	0.45
28:DG:85:LYS:O	28:DG:86:LEU:CG	2.64	0.45
29:DH:50:ARG:NH1	29:DH:53:GLU:CB	2.80	0.45
29:DH:93:SER:HA	29:DH:121:VAL:HG11	1.98	0.45
31:DJ:64:VAL:HG22	31:DJ:68:LYS:CG	2.45	0.45
31:DJ:132:HIS:O	31:DJ:135:GLN:HB2	2.17	0.45
34:DM:41:LEU:HD13	34:DM:96:ILE:HG12	1.99	0.45
35:DN:52:ILE:CG2	35:DN:94:TYR:CD2	2.98	0.45
43:DV:79:ARG:HB3	43:DV:79:ARG:CZ	2.47	0.45
51:D3:29:ARG:HB3	51:D3:29:ARG:CZ	2.47	0.45
1:AA:423:G:O2'	1:AA:424:G:C5'	2.65	0.44
1:AA:601:G:C2	1:AA:602:A:C4	3.05	0.44
1:AA:734:G:H2'	1:AA:735:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:786:G:N2	1:AA:787:A:H1'	2.31	0.44
1:AA:958:A:C5	1:AA:959:A:C6	3.05	0.44
1:AA:1114:C:C2	1:AA:1115:U:C6	3.05	0.44
1:AA:1323:G:C2'	1:AA:1324:A:C8	3.00	0.44
1:AA:1411:C:C2'	1:AA:1412:C:C5'	2.79	0.44
1:AA:1517:G:N3	22:BA:1919:A:O2'	2.49	0.44
4:AD:98:ASP:HB2	4:AD:114:ARG:HG3	1.99	0.44
4:AD:154:VAL:HG22	4:AD:177:MET:HE1	1.99	0.44
4:AD:160:LEU:HD22	4:AD:161:ALA:H	1.81	0.44
6:AF:86:ARG:NH1	18:AR:63:TYR:CB	2.80	0.44
9:AI:25:GLY:HA3	9:AI:57:VAL:O	2.18	0.44
12:AL:62:VAL:HG21	12:AL:94:TYR:HE2	1.70	0.44
22:BA:142:A:C2	22:BA:143:C:C2	3.04	0.44
22:BA:372:G:O4'	45:BX:60:LYS:CE	2.62	0.44
22:BA:404:A:H1'	22:BA:405:U:OP2	2.17	0.44
22:BA:526:A:OP1	62:BA:3247:HOH:O	2.21	0.44
22:BA:572:A:C5'	22:BA:572:A:C8	3.00	0.44
22:BA:592:A:O2'	51:B3:2:LYS:HA	2.16	0.44
22:BA:817:C:H2'	22:BA:818:G:O4'	2.16	0.44
22:BA:869:G:C6	22:BA:870:U:C4	3.05	0.44
22:BA:1030:C:OP2	34:BM:127:LYS:HE3	2.17	0.44
22:BA:1357:C:O2'	22:BA:1358:G:H5'	2.17	0.44
22:BA:1716:U:O2'	22:BA:1717:A:C5'	2.65	0.44
22:BA:2040:G:C2'	22:BA:2041:U:H5'	2.47	0.44
22:BA:2704:C:O2	22:BA:2704:C:H2'	2.17	0.44
22:BA:2881:U:C2'	22:BA:2882:A:H5'	2.47	0.44
24:BC:43:ASN:HB3	24:BC:45:ASN:H	1.82	0.44
24:BC:257:ARG:NE	24:BC:269:ARG:NH2	2.65	0.44
27:BF:151:LEU:HD12	27:BF:152:ASP:CA	2.46	0.44
28:BG:174:LYS:C	28:BG:174:LYS:CD	2.90	0.44
33:BL:61:LEU:N	33:BL:61:LEU:HD13	2.32	0.44
34:BM:52:ALA:O	34:BM:53:MET:C	2.60	0.44
35:BN:60:VAL:O	35:BN:61:ALA:C	2.60	0.44
35:BN:95:THR:CG2	35:BN:113:ILE:CG1	2.95	0.44
36:BO:103:VAL:O	36:BO:105:ALA:O	2.36	0.44
53:CA:89:U:O2'	53:CA:90:C:O5'	2.35	0.44
53:CA:869:G:H4'	53:CA:872:A:C8	2.52	0.44
53:CA:932:C:H2'	53:CA:932:C:O2	2.17	0.44
53:CA:951:G:O2'	53:CA:952:U:H5'	2.17	0.44
53:CA:981:U:C4	53:CA:982:U:C2	3.05	0.44
53:CA:1087:G:N2	53:CA:1099:G:H1'	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1250:A:O3'	9:CI:68:GLY:HA2	2.17	0.44
53:CA:1400:C:H4'	53:CA:1401:G:OP2	2.18	0.44
3:CC:5:HIS:HA	3:CC:6:PRO:HD2	1.83	0.44
10:CJ:44:THR:HG23	10:CJ:70:HIS:CD2	2.52	0.44
10:CJ:92:LEU:HD13	10:CJ:92:LEU:H	1.81	0.44
12:CL:14:LYS:CE	12:CL:15:VAL:O	2.64	0.44
12:CL:23:LEU:O	12:CL:24:GLU:C	2.59	0.44
12:CL:39:THR:OG1	12:CL:40:THR:N	2.50	0.44
14:CN:27:LYS:HB2	14:CN:45:LEU:HD22	2.00	0.44
15:CO:52:ARG:O	15:CO:55:LEU:HB3	2.17	0.44
20:CT:72:ALA:C	20:CT:74:HIS:H	2.25	0.44
22:DA:9:G:N2	22:DA:10:A:H62	2.14	0.44
22:DA:54:G:C6	22:DA:117:G:N2	2.85	0.44
22:DA:90:U:C4	22:DA:91:A:N7	2.85	0.44
22:DA:444:C:O2'	22:DA:445:C:P	2.75	0.44
22:DA:627:A:H3'	33:DL:78:ARG:HH12	1.82	0.44
22:DA:674:G:C2'	26:DE:69:ARG:HG2	2.47	0.44
22:DA:813:U:H1'	22:DA:1226:A:N3	2.32	0.44
22:DA:921:C:O2'	22:DA:922:C:C5'	2.65	0.44
22:DA:960:A:O2'	22:DA:962:G:H5'	2.18	0.44
22:DA:996:A:C4	22:DA:997:G:C8	3.05	0.44
22:DA:1023:U:H5'	22:DA:1023:U:C6	2.37	0.44
22:DA:1024:G:H21	22:DA:1144:A:C4'	2.31	0.44
22:DA:1204:A:N6	22:DA:1241:A:C2	2.85	0.44
22:DA:1429:G:N3	22:DA:1430:G:C8	2.85	0.44
22:DA:1493:C:H2'	22:DA:1493:C:O2	2.16	0.44
22:DA:1731:G:C4'	22:DA:1732:C:OP1	2.45	0.44
22:DA:1873:G:O2'	22:DA:1874:C:H5'	2.17	0.44
22:DA:2011:U:H2'	22:DA:2012:G:H5'	1.99	0.44
22:DA:2260:C:H2'	22:DA:2261:C:C6	2.47	0.44
22:DA:2266:A:H4'	22:DA:2267:A:O5'	2.16	0.44
22:DA:2432:A:C6	45:DX:20:ALA:HA	2.52	0.44
22:DA:2658:C:H5''	28:DG:157:LYS:CD	2.47	0.44
22:DA:2735:G:C4	22:DA:2736:A:C8	3.05	0.44
22:DA:2748:A:C6	22:DA:2757:A:N7	2.85	0.44
57:DB:76:G:O2'	57:DB:77:U:H5'	2.18	0.44
24:DC:159:THR:HG22	24:DC:176:ARG:HG3	1.99	0.44
24:DC:245:THR:HB	24:DC:246:PRO:HD2	1.99	0.44
25:DD:21:SER:HB2	32:DK:73:ASP:O	2.18	0.44
25:DD:116:LYS:HD3	35:DN:1:MET:HE1	1.99	0.44
26:DE:5:LEU:CD1	26:DE:122:GLU:HB2	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DG:1:SER:HB2	28:DG:61:TRP:CE3	2.53	0.44
28:DG:85:LYS:HD3	28:DG:164:ALA:HB3	1.99	0.44
30:DI:44:LYS:O	30:DI:44:LYS:HD3	2.17	0.44
31:DJ:27:ARG:C	31:DJ:30:THR:HG22	2.42	0.44
31:DJ:56:VAL:HG11	31:DJ:101:ILE:HG21	1.99	0.44
33:DL:96:LYS:C	33:DL:98:ALA:N	2.74	0.44
34:DM:73:ILE:HD13	34:DM:73:ILE:HA	1.83	0.44
35:DN:36:THR:O	35:DN:110:MET:HA	2.17	0.44
37:DP:102:ARG:HD2	37:DP:106:ALA:C	2.42	0.44
38:DQ:64:ILE:O	38:DQ:68:ALA:CB	2.66	0.44
39:DR:9:GLY:C	39:DR:10:LYS:CG	2.89	0.44
40:DS:96:ILE:HG23	40:DS:96:ILE:O	2.17	0.44
41:DT:61:LEU:C	41:DT:61:LEU:CD1	2.84	0.44
45:DX:36:ARG:HA	45:DX:47:THR:HA	1.98	0.44
52:D4:36:ARG:CG	52:D4:37:GLN:N	2.78	0.44
1:AA:208:U:H3	1:AA:212:G:H21	1.64	0.44
1:AA:395:C:H2'	1:AA:396:C:C6	2.53	0.44
1:AA:617:G:C2	1:AA:618:C:C5	3.05	0.44
1:AA:661:G:C2	1:AA:745:G:C2	3.05	0.44
1:AA:953:G:C6	1:AA:954:G:C4	3.05	0.44
1:AA:981:U:H2'	1:AA:982:U:H5	1.83	0.44
1:AA:1108:G:C5	1:AA:1109:C:C6	3.06	0.44
1:AA:1138:G:N2	1:AA:1140:C:N4	2.66	0.44
1:AA:1254:A:OP1	10:AJ:47:GLU:HG2	2.17	0.44
1:AA:1323:G:C2'	1:AA:1324:A:H8	2.30	0.44
1:AA:1331:G:C2'	1:AA:1332:A:OP2	2.65	0.44
2:AB:118:THR:O	2:AB:119:GLN:HB2	2.16	0.44
2:AB:185:ILE:HA	2:AB:199:ILE:O	2.17	0.44
4:AD:49:ASP:O	4:AD:52:VAL:HG22	2.17	0.44
4:AD:60:VAL:C	4:AD:63:ILE:HG22	2.42	0.44
6:AF:93:LYS:O	6:AF:94:HIS:CB	2.66	0.44
13:AM:3:ILE:CA	13:AM:56:ARG:NH1	2.77	0.44
14:AN:22:LYS:O	14:AN:25:GLU:HG2	2.18	0.44
16:AP:36:VAL:O	16:AP:36:VAL:CG1	2.62	0.44
18:AR:24:ASP:C	18:AR:26:ALA:N	2.75	0.44
20:AT:67:HIS:C	20:AT:68:LYS:HZ2	2.25	0.44
22:BA:38:A:H2'	22:BA:39:G:O5'	2.18	0.44
22:BA:43:G:H8	22:BA:43:G:C5'	2.30	0.44
22:BA:372:G:P	45:BX:61:LYS:HZ1	2.39	0.44
22:BA:480:A:O3'	42:BU:43:LYS:HG2	2.17	0.44
22:BA:495:G:H21	40:BS:61:ASN:HD21	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:723:C:H2'	22:BA:724:U:O4'	2.18	0.44
22:BA:1106:G:N3	22:BA:1107:G:C8	2.85	0.44
22:BA:1205:A:C6	26:BE:165:HIS:CG	3.05	0.44
22:BA:1268:A:H2	40:BS:88:ARG:NH1	2.16	0.44
22:BA:1661:G:C4	22:BA:1662:U:C5	3.06	0.44
22:BA:1690:A:H2'	22:BA:1691:C:O4'	2.18	0.44
22:BA:1748:C:H2'	22:BA:1749:A:H8	1.83	0.44
22:BA:1835:G:C4	22:BA:1931:U:C4	3.05	0.44
22:BA:2078:C:O2'	22:BA:2079:U:H5'	2.17	0.44
22:BA:2392:A:O3'	51:B3:26:ALA:HB1	2.17	0.44
22:BA:2446:G:C2	22:BA:2501:C:C5	3.05	0.44
22:BA:2552:U:H2'	22:BA:2554:U:OP2	2.17	0.44
22:BA:2661:G:H2'	22:BA:2662:A:C8	2.52	0.44
22:BA:2842:G:H2'	22:BA:2843:G:C5'	2.47	0.44
29:BH:2:GLN:HA	29:BH:20:ASN:HD22	1.82	0.44
30:BI:95:ASP:O	30:BI:97:VAL:N	2.46	0.44
31:BJ:53:TYR:CE1	31:BJ:121:LYS:HG2	2.52	0.44
32:BK:99:ILE:HG23	32:BK:100:PHE:H	1.79	0.44
32:BK:113:MET:O	32:BK:114:LYS:C	2.60	0.44
33:BL:67:THR:CG2	33:BL:68:SER:N	2.80	0.44
34:BM:6:ARG:HD2	34:BM:8:LYS:HZ3	1.80	0.44
34:BM:43:ALA:O	34:BM:44:ARG:C	2.59	0.44
37:BP:8:GLU:O	37:BP:11:GLN:HB2	2.17	0.44
37:BP:52:ARG:O	37:BP:53:GLY:C	2.61	0.44
39:BR:46:GLU:HG2	39:BR:47:VAL:H	1.82	0.44
41:BT:27:SER:C	41:BT:28:ASN:CG	2.84	0.44
41:BT:34:VAL:O	41:BT:34:VAL:CG2	2.65	0.44
42:BU:53:GLN:N	42:BU:54:PRO:HD2	2.22	0.44
42:BU:60:LYS:HD2	42:BU:60:LYS:HA	1.68	0.44
44:BW:24:ARG:NH1	44:BW:26:GLY:N	2.65	0.44
44:BW:65:LYS:O	44:BW:81:ILE:HA	2.18	0.44
53:CA:142:G:N3	53:CA:196:A:H2	2.15	0.44
53:CA:267:C:P	17:CQ:68:LYS:HB2	2.57	0.44
53:CA:301:G:H2'	53:CA:302:G:H8	1.82	0.44
53:CA:491:G:H2'	53:CA:492:C:H5'	1.99	0.44
53:CA:784:A:N6	53:CA:799:G:C6	2.85	0.44
53:CA:821:G:C4	53:CA:822:U:C5	3.05	0.44
53:CA:1089:G:H1'	53:CA:1167:A:N6	2.32	0.44
53:CA:1157:A:C6	53:CA:1180:A:C5	3.04	0.44
53:CA:1171:A:C2	53:CA:1172:C:C2	3.05	0.44
53:CA:1317:C:H1'	14:CN:52:ARG:NH1	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1477:U:H2'	53:CA:1478:U:C6	2.52	0.44
53:CA:1493:A:H2'	53:CA:1494:G:OP1	2.18	0.44
2:CB:124:THR:HG23	2:CB:125:PHE:H	1.81	0.44
4:CD:9:LYS:O	4:CD:12:ARG:HB3	2.17	0.44
4:CD:49:ASP:O	4:CD:53:GLN:HG3	2.17	0.44
4:CD:118:SER:C	4:CD:120:LYS:H	2.25	0.44
4:CD:123:MET:HE2	4:CD:126:GLY:O	2.18	0.44
8:CH:30:LYS:O	8:CH:31:LEU:C	2.60	0.44
8:CH:57:GLU:CG	8:CH:58:LEU:H	2.30	0.44
8:CH:102:VAL:HG22	8:CH:126:CYS:SG	2.58	0.44
21:CU:13:VAL:CG2	21:CU:15:LEU:HD23	2.47	0.44
22:DA:83:A:N6	22:DA:101:A:C5'	2.75	0.44
22:DA:119:A:C5'	22:DA:120:U:OP1	2.65	0.44
22:DA:373:U:O2'	22:DA:374:A:H8	2.01	0.44
22:DA:410:G:N2	22:DA:418:C:C2	2.85	0.44
22:DA:498:G:C2	22:DA:499:U:C6	3.05	0.44
22:DA:508:A:N6	40:DS:9:HIS:CE1	2.79	0.44
22:DA:755:U:H2'	22:DA:756:A:C8	2.52	0.44
22:DA:1020:A:H5''	22:DA:1021:A:OP1	2.16	0.44
22:DA:1070:A:H5'	22:DA:1071:G:C5'	2.39	0.44
22:DA:1383:A:C2	22:DA:1384:A:C4	3.05	0.44
22:DA:1391:U:C4'	41:DT:19:LYS:NZ	2.69	0.44
22:DA:1421:G:N3	22:DA:1421:G:H2'	2.32	0.44
22:DA:1441:G:C4	22:DA:1442:U:C5	3.06	0.44
22:DA:1473:G:O2'	22:DA:1474:U:H5'	2.16	0.44
22:DA:1510:G:C2	22:DA:1511:G:C5	3.05	0.44
22:DA:1601:G:H2'	22:DA:1602:U:O4'	2.17	0.44
22:DA:1906:G:C2	22:DA:1907:G:C5	3.05	0.44
22:DA:1929:G:C5'	22:DA:1930:G:OP1	2.66	0.44
22:DA:1954:G:O2'	22:DA:1956:U:H5	2.00	0.44
22:DA:2154:A:H2'	22:DA:2155:U:H6	1.83	0.44
22:DA:2271:G:C2'	22:DA:2272:U:H5'	2.46	0.44
22:DA:2416:C:H2'	22:DA:2417:C:C6	2.52	0.44
22:DA:2476:A:C2'	22:DA:2477:U:H5'	2.47	0.44
22:DA:2492:U:O5'	22:DA:2492:U:H6	2.00	0.44
22:DA:2559:C:H2'	22:DA:2560:A:H8	1.82	0.44
22:DA:2657:A:O2'	22:DA:2658:C:O5'	2.35	0.44
22:DA:2820:A:O2'	35:DN:3:HIS:HD2	1.99	0.44
24:DC:83:ASP:C	24:DC:85:ASN:H	2.25	0.44
24:DC:95:TYR:C	24:DC:97:ASP:N	2.73	0.44
25:DD:171:THR:O	25:DD:172:VAL:CG2	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:16:MET:HA	58:DF:21:TYR:HB2	1.99	0.44
58:DF:42:ALA:CB	58:DF:49:LEU:CD2	2.94	0.44
29:DH:80:ILE:CG2	29:DH:101:ASP:HB2	2.47	0.44
30:DI:20:SER:N	30:DI:21:PRO:HD2	2.32	0.44
31:DJ:4:PHE:CG	31:DJ:5:THR:N	2.85	0.44
31:DJ:48:VAL:HG12	31:DJ:49:ASP:H	1.81	0.44
32:DK:10:VAL:CG1	32:DK:12:ASP:OD1	2.65	0.44
32:DK:100:PHE:CD1	32:DK:100:PHE:N	2.85	0.44
33:DL:112:LEU:HD23	33:DL:112:LEU:O	2.17	0.44
41:DT:18:GLU:HB2	41:DT:19:LYS:H	1.52	0.44
42:DU:64:ILE:O	42:DU:64:ILE:HG12	2.15	0.44
43:DV:44:HIS:NE2	43:DV:85:LYS:HD3	2.32	0.44
43:DV:65:VAL:O	43:DV:65:VAL:HG22	2.16	0.44
44:DW:36:ILE:O	44:DW:39:GLN:HB3	2.17	0.44
1:AA:115:G:O2'	1:AA:116:A:OP2	2.33	0.44
1:AA:283:U:C5	1:AA:284:C:C4	3.06	0.44
1:AA:583:A:C6	1:AA:759:A:N7	2.84	0.44
1:AA:596:A:C2'	1:AA:597:G:H8	2.27	0.44
1:AA:695:A:H61	1:AA:797:C:H1'	1.82	0.44
1:AA:748:G:C6	1:AA:749:A:C6	3.05	0.44
1:AA:771:G:H2'	1:AA:772:U:C6	2.52	0.44
1:AA:1147:C:O2	9:AI:17:ARG:NH1	2.51	0.44
2:AB:63:LYS:C	2:AB:63:LYS:CD	2.89	0.44
2:AB:90:PHE:O	2:AB:149:GLY:N	2.50	0.44
4:AD:88:ASN:O	4:AD:92:LEU:HD23	2.17	0.44
4:AD:114:ARG:O	4:AD:117:VAL:N	2.49	0.44
6:AF:10:VAL:HG12	6:AF:11:HIS:H	1.82	0.44
7:AG:25:PHE:CE1	7:AG:104:VAL:HG23	2.53	0.44
8:AH:17:GLN:O	8:AH:18:ALA:C	2.60	0.44
11:AK:110:THR:HG22	21:AU:4:LYS:CA	2.47	0.44
14:AN:40:ARG:CZ	14:AN:44:VAL:HG21	2.47	0.44
16:AP:19:VAL:CG2	16:AP:36:VAL:HG12	2.44	0.44
22:BA:302:C:H2'	22:BA:303:G:C8	2.50	0.44
22:BA:735:A:H3'	22:BA:736:C:H6	1.83	0.44
22:BA:1495:A:C6	22:BA:1496:A:C6	3.06	0.44
22:BA:1658:C:H5'	25:BD:138:LEU:CD2	2.48	0.44
22:BA:1824:G:C5	22:BA:1825:U:C5	3.06	0.44
22:BA:1946:U:H2'	22:BA:1947:C:C6	2.52	0.44
22:BA:1983:G:C2'	22:BA:1984:G:H5'	2.47	0.44
22:BA:2251:G:H2'	22:BA:2252:G:C8	2.52	0.44
22:BA:2347:C:H2'	22:BA:2348:U:C5	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2475:C:H2'	22:BA:2476:A:H5'	1.98	0.44
22:BA:2594:C:N4	62:BA:3779:HOH:O	2.51	0.44
22:BA:2716:C:C2'	22:BA:2717:C:H5'	2.48	0.44
22:BA:2788:C:H2'	22:BA:2789:C:C6	2.52	0.44
23:BB:14:U:OP2	23:BB:70:C:O2'	2.31	0.44
24:BC:254:LYS:HE3	24:BC:254:LYS:HB3	1.74	0.44
26:BE:200:LEU:N	26:BE:200:LEU:HD22	2.32	0.44
27:BF:30:VAL:CG1	27:BF:30:VAL:O	2.65	0.44
27:BF:71:LYS:HD3	27:BF:80:GLN:HG3	1.99	0.44
27:BF:133:GLU:H	27:BF:150:GLY:CA	2.26	0.44
29:BH:120:GLY:C	29:BH:121:VAL:HG22	2.43	0.44
29:BH:124:THR:O	29:BH:125:THR:C	2.60	0.44
29:BH:129:GLU:HG2	29:BH:142:VAL:O	2.17	0.44
30:BI:30:GLN:NE2	30:BI:32:VAL:HB	2.32	0.44
34:BM:77:PRO:HB2	34:BM:80:VAL:CG1	2.47	0.44
37:BP:19:PHE:O	37:BP:20:ARG:CB	2.62	0.44
39:BR:81:LYS:O	39:BR:82:HIS:C	2.60	0.44
40:BS:14:ALA:C	40:BS:16:LYS:N	2.74	0.44
45:BX:10:ARG:HB2	45:BX:11:PRO:HD2	1.99	0.44
47:BZ:8:GLN:HB3	47:BZ:31:ILE:HA	1.99	0.44
50:B2:24:THR:O	50:B2:25:LYS:C	2.59	0.44
51:B3:6:VAL:HG21	51:B3:60:CYS:SG	2.58	0.44
53:CA:36:C:O3'	12:CL:119:LYS:HA	2.18	0.44
53:CA:71:A:C2'	53:CA:72:A:O5'	2.65	0.44
53:CA:615:G:N3	53:CA:616:G:C8	2.86	0.44
53:CA:797:C:OP1	11:CK:125:LYS:HE3	2.18	0.44
53:CA:903:G:C6	53:CA:904:U:C4	3.06	0.44
53:CA:956:U:O2	53:CA:1225:A:C2	2.71	0.44
53:CA:959:A:H2'	53:CA:960:U:O5'	2.18	0.44
53:CA:998:C:C6	53:CA:999:C:H5	2.35	0.44
53:CA:1087:G:N1	53:CA:1099:G:C2	2.85	0.44
53:CA:1215:G:C4	53:CA:1216:A:N7	2.85	0.44
2:CB:27:LYS:N	2:CB:28:PRO:HD2	2.33	0.44
2:CB:130:LYS:HD3	2:CB:133:ALA:CB	2.46	0.44
3:CC:161:ILE:HD13	3:CC:161:ILE:N	2.32	0.44
54:CG:4:ARG:HG2	54:CG:6:ILE:HG22	1.99	0.44
55:CM:82:LEU:CD2	19:CS:60:PHE:HB3	2.46	0.44
22:DA:167:A:C2	22:DA:168:G:H1'	2.52	0.44
22:DA:374:A:C6	22:DA:401:A:N7	2.84	0.44
22:DA:448:U:H4'	22:DA:449:A:OP2	2.17	0.44
22:DA:479:A:O2'	22:DA:480:A:H5'	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:503:A:H5'	22:DA:504:A:H3'	1.99	0.44
22:DA:590:A:C4	22:DA:591:U:C6	3.05	0.44
22:DA:638:G:N2	22:DA:651:G:H1'	2.32	0.44
22:DA:647:G:O2'	22:DA:648:G:C5'	2.65	0.44
22:DA:672:C:H6	22:DA:672:C:C5'	2.30	0.44
22:DA:988:A:C2	22:DA:989:G:C2	3.06	0.44
22:DA:1087:G:H2'	22:DA:1089:A:C8	2.52	0.44
22:DA:1340:U:H4'	22:DA:1340:U:OP1	2.16	0.44
22:DA:1359:A:H2'	22:DA:1359:A:N3	2.32	0.44
22:DA:1413:A:C5	22:DA:1414:C:N4	2.86	0.44
22:DA:1478:G:C6	22:DA:1514:G:C2	3.05	0.44
22:DA:1555:G:C2	22:DA:1556:C:C4	3.05	0.44
22:DA:1838:C:N4	22:DA:1898:U:H2'	2.32	0.44
22:DA:1874:C:H2'	22:DA:1875:G:O4'	2.17	0.44
22:DA:2108:A:C8	22:DA:2108:A:OP2	2.71	0.44
22:DA:2138:G:H8	22:DA:2138:G:OP2	2.00	0.44
22:DA:2282:G:O2'	22:DA:2283:C:OP2	2.35	0.44
22:DA:2429:G:H8	22:DA:2429:G:H2'	1.45	0.44
22:DA:2561:U:H2'	22:DA:2562:U:O5'	2.16	0.44
22:DA:2724:U:H5''	25:DD:123:LYS:NZ	2.32	0.44
22:DA:2751:G:N3	28:DG:2:ARG:NH2	2.64	0.44
22:DA:2893:A:C4'	22:DA:2894:G:O5'	2.62	0.44
57:DB:32:U:C2	57:DB:51:G:N2	2.85	0.44
57:DB:78:A:H2'	57:DB:79:G:C8	2.53	0.44
25:DD:61:THR:OG1	25:DD:64:GLU:HG3	2.18	0.44
25:DD:94:GLN:O	25:DD:95:SER:C	2.61	0.44
25:DD:124:ARG:NH1	25:DD:125:TRP:CE2	2.85	0.44
31:DJ:49:ASP:HB2	31:DJ:121:LYS:NZ	2.32	0.44
31:DJ:123:LYS:N	31:DJ:123:LYS:CD	2.80	0.44
32:DK:73:ASP:OD1	32:DK:73:ASP:N	2.49	0.44
33:DL:19:LEU:HD11	33:DL:31:GLY:CA	2.48	0.44
34:DM:53:MET:HE1	34:DM:103:TYR:CB	2.47	0.44
37:DP:5:LYS:CG	37:DP:9:GLN:HE21	2.31	0.44
40:DS:49:LYS:HB3	40:DS:49:LYS:HZ2	1.79	0.44
42:DU:43:LYS:HE3	42:DU:45:GLN:OE1	2.16	0.44
43:DV:73:LYS:HB3	43:DV:92:VAL:HG23	1.99	0.44
44:DW:81:ILE:C	44:DW:81:ILE:CD1	2.81	0.44
46:DY:21:LEU:CD2	46:DY:25:GLN:NE2	2.80	0.44
47:DZ:4:ILE:HG23	47:DZ:57:GLU:O	2.17	0.44
48:D0:29:VAL:HG21	48:D0:34:GLY:HA2	2.00	0.44
1:AA:140:U:H2'	1:AA:141:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:324:G:N2	1:AA:327:A:C8	2.85	0.44
1:AA:328:C:O2	1:AA:328:C:C2'	2.66	0.44
1:AA:408:A:O5'	4:AD:109:THR:HG21	2.18	0.44
1:AA:748:G:C6	1:AA:749:A:C5	3.06	0.44
1:AA:811:C:H4'	1:AA:900:A:N6	2.32	0.44
1:AA:934:C:H5'	1:AA:935:A:OP1	2.16	0.44
1:AA:981:U:H2'	1:AA:982:U:C5	2.53	0.44
1:AA:1138:G:C2	1:AA:1140:C:C4	3.06	0.44
1:AA:1234:C:N3	1:AA:1235:U:C5	2.86	0.44
1:AA:1317:C:C2'	1:AA:1318:A:H5'	2.41	0.44
1:AA:1380:U:C5'	1:AA:1381:U:OP1	2.63	0.44
1:AA:1457:G:O3'	20:AT:26:MET:HB3	2.17	0.44
1:AA:1465:A:O2'	1:AA:1466:C:H5'	2.17	0.44
2:AB:71:THR:CG2	2:AB:72:LYS:H	2.09	0.44
4:AD:58:GLN:CA	4:AD:58:GLN:HE21	2.30	0.44
4:AD:119:HIS:O	4:AD:120:LYS:C	2.58	0.44
4:AD:133:SER:O	4:AD:134:TYR:C	2.59	0.44
4:AD:172:VAL:HG13	4:AD:173:ASP:N	2.32	0.44
9:AI:56:MET:SD	9:AI:57:VAL:N	2.90	0.44
11:AK:69:CYS:O	11:AK:73:VAL:CG2	2.65	0.44
12:AL:21:PRO:O	12:AL:22:ALA:C	2.58	0.44
13:AM:10:ASP:CG	13:AM:44:ILE:HB	2.42	0.44
13:AM:47:LEU:HD23	13:AM:47:LEU:C	2.42	0.44
15:AO:60:SER:O	15:AO:64:LYS:HG3	2.17	0.44
16:AP:6:LEU:HD12	16:AP:6:LEU:HA	1.69	0.44
22:BA:10:A:C5	22:BA:2800:A:C6	3.05	0.44
22:BA:77:G:C4	22:BA:110:G:C2	3.05	0.44
22:BA:260:G:H2'	22:BA:261:G:O5'	2.17	0.44
22:BA:482:A:N6	22:BA:506:G:O2'	2.38	0.44
22:BA:536:G:O2'	22:BA:537:G:H5'	2.18	0.44
22:BA:581:C:H2'	22:BA:582:A:H8	1.81	0.44
22:BA:669:G:C5	22:BA:801:G:C6	3.05	0.44
22:BA:919:U:H6	22:BA:919:U:C4'	2.31	0.44
22:BA:959:A:C2	22:BA:2494:G:N2	2.86	0.44
22:BA:1057:A:C8	22:BA:1086:A:C8	3.05	0.44
22:BA:1179:G:N7	22:BA:1180:U:C1'	2.79	0.44
22:BA:1269:A:H8	22:BA:1269:A:O5'	1.99	0.44
22:BA:1290:C:C2	22:BA:1291:C:C5	3.06	0.44
22:BA:1611:C:O2'	22:BA:1612:C:H5'	2.17	0.44
22:BA:1688:U:C4	22:BA:1698:A:C2	3.05	0.44
22:BA:1744:A:H2'	22:BA:1744:A:N3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2557:G:H2'	22:BA:2558:C:H6	1.78	0.44
22:BA:2593:U:H2'	22:BA:2594:C:C6	2.51	0.44
23:BB:52:A:N7	36:BO:64:TYR:OH	2.44	0.44
25:BD:148:GLN:CD	25:BD:148:GLN:N	2.75	0.44
28:BG:37:ASN:OD1	28:BG:37:ASN:N	2.51	0.44
28:BG:159:LYS:HB3	28:BG:159:LYS:HE2	1.72	0.44
33:BL:82:LEU:C	33:BL:82:LEU:CD2	2.90	0.44
35:BN:95:THR:HG21	35:BN:113:ILE:CG1	2.47	0.44
37:BP:101:GLU:C	37:BP:102:ARG:HG2	2.42	0.44
38:BQ:17:LEU:HD13	38:BQ:17:LEU:HA	1.79	0.44
38:BQ:86:SER:HB3	39:BR:51:VAL:HG12	1.98	0.44
39:BR:18:GLN:O	39:BR:97:LYS:O	2.35	0.44
40:BS:36:LEU:HA	40:BS:36:LEU:HD12	1.55	0.44
42:BU:6:ARG:HH21	42:BU:6:ARG:HG3	1.82	0.44
42:BU:40:LEU:HA	42:BU:40:LEU:HD23	1.77	0.44
43:BV:76:ASP:OD1	43:BV:77:VAL:N	2.49	0.44
44:BW:49:ASN:OD1	44:BW:79:ILE:O	2.34	0.44
53:CA:96:U:O2'	53:CA:97:G:H5'	2.17	0.44
53:CA:207:C:O2	53:CA:213:G:C6	2.70	0.44
53:CA:327:A:C2	53:CA:329:A:C4	3.06	0.44
53:CA:604:G:C6	53:CA:605:U:N3	2.86	0.44
53:CA:614:C:C2	53:CA:615:G:C8	3.06	0.44
53:CA:704:A:N3	53:CA:705:G:C8	2.86	0.44
53:CA:789:U:N3	53:CA:792:A:OP2	2.51	0.44
53:CA:833:G:C5	53:CA:834:U:C5	3.06	0.44
53:CA:989:U:C3'	53:CA:990:C:H5'	2.42	0.44
53:CA:994:A:O2'	53:CA:995:C:C6	2.66	0.44
53:CA:1084:G:OP1	53:CA:1086:U:C4	2.71	0.44
53:CA:1134:G:C6	53:CA:1141:C:N4	2.85	0.44
53:CA:1141:C:HO2'	53:CA:1142:G:H8	1.65	0.44
53:CA:1221:G:H5'	19:CS:35:ARG:NE	2.32	0.44
53:CA:1251:A:H2'	53:CA:1369:C:O2'	2.17	0.44
53:CA:1288:A:C2'	53:CA:1289:A:C8	3.00	0.44
53:CA:1357:A:C8	53:CA:1358:U:C5	3.04	0.44
4:CD:39:GLN:O	4:CD:41:GLY:N	2.50	0.44
5:CE:91:SER:HB2	5:CE:129:SER:O	2.16	0.44
8:CH:45:ILE:N	8:CH:63:LYS:HD3	2.33	0.44
8:CH:94:VAL:CG2	8:CH:101:ALA:HB2	2.48	0.44
11:CK:104:PHE:HD1	11:CK:104:PHE:N	2.15	0.44
12:CL:87:LYS:HG2	12:CL:87:LYS:O	2.16	0.44
14:CN:79:SER:O	14:CN:83:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:CQ:61:ARG:C	17:CQ:72:TRP:HE3	2.24	0.44
20:CT:4:LYS:HE3	20:CT:5:SER:N	2.31	0.44
20:CT:71:ALA:O	20:CT:72:ALA:C	2.61	0.44
22:DA:84:A:H2	22:DA:98:G:N3	2.16	0.44
22:DA:156:A:C4	22:DA:157:C:C6	3.05	0.44
22:DA:203:A:H8	22:DA:203:A:O5'	2.01	0.44
22:DA:215:G:H4'	22:DA:216:A:OP1	2.18	0.44
22:DA:378:C:O2'	22:DA:379:G:H5'	2.17	0.44
22:DA:470:A:C2	22:DA:471:A:C4	3.05	0.44
22:DA:524:G:C5	22:DA:525:U:C5	3.05	0.44
22:DA:935:C:H2'	22:DA:936:A:H8	1.82	0.44
22:DA:962:G:O2'	22:DA:963:U:O5'	2.35	0.44
22:DA:999:U:H2'	22:DA:1000:A:C5'	2.46	0.44
22:DA:1062:G:C4	22:DA:1063:G:N7	2.85	0.44
22:DA:1089:A:H2	22:DA:1090:A:H62	1.65	0.44
22:DA:1116:G:C5	22:DA:1117:C:C5	3.04	0.44
22:DA:1809:A:C4	22:DA:1810:A:N7	2.86	0.44
22:DA:1993:U:O2'	22:DA:1994:C:O4'	2.32	0.44
22:DA:2455:G:C2	22:DA:2498:C:N4	2.85	0.44
22:DA:2458:G:C5'	22:DA:2459:A:OP1	2.66	0.44
22:DA:2692:G:H2'	22:DA:2693:G:C8	2.52	0.44
22:DA:2805:C:H2'	22:DA:2806:C:H6	1.83	0.44
22:DA:2868:A:O2'	22:DA:2869:G:O4'	2.29	0.44
24:DC:239:PHE:HD1	24:DC:240:GLY:N	2.14	0.44
25:DD:15:PHE:CE2	37:DP:77:SER:HA	2.53	0.44
28:DG:51:PHE:HE2	28:DG:68:ARG:HG2	1.82	0.44
32:DK:46:ALA:HB3	32:DK:54:LYS:HE3	2.00	0.44
32:DK:105:ARG:HB2	32:DK:108:ARG:HD2	1.99	0.44
32:DK:107:LEU:C	32:DK:109:SER:N	2.73	0.44
34:DM:66:ARG:HD2	34:DM:101:VAL:HG13	1.99	0.44
41:DT:29:THR:OG1	41:DT:86:THR:N	2.45	0.44
41:DT:87:LEU:HD23	41:DT:87:LEU:C	2.41	0.44
51:D3:22:LYS:HG2	51:D3:46:LYS:CE	2.48	0.44
1:AA:311:C:C4	1:AA:312:C:C5	3.06	0.44
1:AA:586:C:O2'	8:AH:3:GLN:NE2	2.50	0.44
1:AA:937:A:C2'	1:AA:938:A:H5'	2.48	0.44
1:AA:1066:C:H2'	1:AA:1067:A:C8	2.53	0.44
2:AB:209:VAL:O	2:AB:210:THR:C	2.60	0.44
4:AD:57:LYS:HZ2	4:AD:61:ARG:HD3	1.83	0.44
6:AF:41:ASP:C	6:AF:43:GLY:N	2.76	0.44
6:AF:42:TRP:CD1	6:AF:42:TRP:H	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:90:MET:HB3	6:AF:91:ARG:H	1.43	0.44
7:AG:69:ARG:HG3	7:AG:95:ARG:HD3	1.99	0.44
9:AI:50:PRO:HB3	9:AI:83:THR:CG2	2.47	0.44
10:AJ:28:THR:O	10:AJ:32:THR:HG22	2.17	0.44
10:AJ:74:VAL:CG1	10:AJ:75:ASP:N	2.69	0.44
11:AK:62:ALA:CB	11:AK:91:GLY:HA3	2.47	0.44
11:AK:106:ILE:C	11:AK:106:ILE:CD1	2.82	0.44
11:AK:109:ILE:N	21:AU:5:VAL:O	2.50	0.44
12:AL:20:VAL:N	12:AL:21:PRO:HD3	2.33	0.44
12:AL:79:ILE:HD12	12:AL:96:THR:HG22	1.98	0.44
13:AM:22:TYR:O	13:AM:68:LEU:HD23	2.17	0.44
13:AM:84:CYS:O	13:AM:88:LEU:HD11	2.18	0.44
13:AM:84:CYS:HA	19:AS:73:PHE:CD2	2.53	0.44
14:AN:78:LEU:HB2	14:AN:83:VAL:HG23	1.99	0.44
15:AO:38:LEU:HD13	15:AO:38:LEU:HA	1.85	0.44
21:AU:23:GLU:HB3	21:AU:24:LYS:H	1.52	0.44
21:AU:24:LYS:HG2	21:AU:25:ALA:N	2.33	0.44
22:BA:49:A:C6	22:BA:177:G:C5	3.05	0.44
22:BA:212:G:O2'	22:BA:213:A:H5'	2.16	0.44
22:BA:269:C:C2'	22:BA:270:A:C5'	2.91	0.44
22:BA:633:A:C8	22:BA:633:A:H3'	2.53	0.44
22:BA:638:G:C5	22:BA:651:G:N2	2.85	0.44
22:BA:696:G:H2'	22:BA:697:G:H8	1.83	0.44
22:BA:976:G:H4'	22:BA:1156:A:N7	2.31	0.44
22:BA:1206:G:C4	22:BA:1207:C:C5	3.06	0.44
22:BA:1445:G:C6	22:BA:1446:C:C4	3.06	0.44
22:BA:1739:A:H2'	22:BA:1740:G:O4'	2.17	0.44
22:BA:1798:U:P	24:BC:255:LYS:HA	2.57	0.44
22:BA:1858:A:O2'	22:BA:1859:U:C5'	2.66	0.44
22:BA:1941:C:H6	22:BA:1941:C:C5'	2.23	0.44
22:BA:2013:A:H2'	22:BA:2014:A:H5'	1.98	0.44
22:BA:2227:A:H2'	22:BA:2228:G:O4'	2.17	0.44
22:BA:2280:G:C6	22:BA:2281:A:N7	2.86	0.44
22:BA:2298:A:C2	22:BA:2321:U:N3	2.86	0.44
22:BA:2323:G:H2'	22:BA:2324:U:H5'	1.99	0.44
22:BA:2800:A:HO2'	22:BA:2801:G:P	2.41	0.44
26:BE:29:HIS:O	26:BE:32:VAL:CG2	2.66	0.44
26:BE:146:VAL:O	26:BE:167:VAL:HG23	2.18	0.44
27:BF:114:ARG:N	27:BF:114:ARG:CD	2.69	0.44
29:BH:9:VAL:O	29:BH:10:ALA:C	2.60	0.44
29:BH:78:VAL:HG21	29:BH:145:ASN:HD22	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:116:ILE:HD12	32:BK:117:SER:H	1.78	0.44
35:BN:31:HIS:C	35:BN:33:ILE:H	2.26	0.44
36:BO:90:VAL:O	36:BO:117:PHE:HB3	2.17	0.44
37:BP:47:ILE:HA	37:BP:96:LEU:HB2	2.00	0.44
45:BX:38:TRP:CZ3	45:BX:44:ARG:N	2.86	0.44
53:CA:142:G:C6	53:CA:143:A:C8	3.05	0.44
53:CA:659:U:O2	53:CA:747:A:C2	2.70	0.44
53:CA:694:A:C2'	53:CA:695:A:H5''	2.48	0.44
53:CA:881:G:C2	53:CA:882:C:C2	3.06	0.44
53:CA:1283:U:O2'	53:CA:1284:C:O4'	2.33	0.44
2:CB:30:ILE:HG23	2:CB:39:ILE:O	2.17	0.44
2:CB:116:LEU:CB	2:CB:140:LEU:HD13	2.47	0.44
2:CB:150:ILE:O	2:CB:150:ILE:HG13	2.18	0.44
3:CC:26:LYS:CE	3:CC:26:LYS:CA	2.90	0.44
4:CD:25:ARG:HH12	4:CD:30:LYS:CE	2.30	0.44
4:CD:26:ALA:HA	4:CD:31:CYS:SG	2.58	0.44
54:CG:110:ARG:HG2	54:CG:112:ASP:OD1	2.17	0.44
11:CK:74:LYS:HD2	11:CK:104:PHE:CE1	2.51	0.44
12:CL:122:LYS:O	12:CL:123:ALA:HB3	2.17	0.44
17:CQ:62:GLU:HB2	17:CQ:72:TRP:CZ3	2.52	0.44
19:CS:28:LYS:HB3	19:CS:29:PRO:CD	2.44	0.44
20:CT:82:ILE:C	20:CT:84:LYS:N	2.74	0.44
21:CU:9:GLU:OE1	21:CU:11:PHE:HE2	2.00	0.44
21:CU:31:VAL:O	21:CU:33:ARG:N	2.50	0.44
22:DA:197:A:C8	22:DA:2430:A:N7	2.85	0.44
22:DA:271:G:C2	22:DA:367:G:C4	3.05	0.44
22:DA:387:U:H4'	22:DA:388:G:O5'	2.18	0.44
22:DA:455:C:H4'	22:DA:456:C:OP2	2.17	0.44
22:DA:570:G:C5	22:DA:2030:A:C5	3.06	0.44
22:DA:815:C:OP1	39:DR:85:LYS:CE	2.65	0.44
22:DA:1142:A:N7	22:DA:1144:A:C6	2.85	0.44
22:DA:1157:G:H2'	22:DA:1158:C:C5	2.52	0.44
22:DA:1249:U:P	22:DA:1249:U:H3'	2.58	0.44
22:DA:1287:A:O2'	22:DA:1288:G:C5'	2.65	0.44
22:DA:1320:C:HO2'	22:DA:1321:A:H8	1.63	0.44
22:DA:1438:U:C4	22:DA:1555:G:N1	2.86	0.44
22:DA:1455:G:O2'	22:DA:1456:G:O5'	2.35	0.44
22:DA:1465:G:C5	22:DA:1466:U:C4	3.06	0.44
22:DA:1476:U:O2	22:DA:1516:G:C2	2.71	0.44
22:DA:1613:G:C6	22:DA:1619:G:C6	3.05	0.44
22:DA:1731:G:C2	22:DA:1733:G:N7	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1910:G:C6	22:DA:1911:U:C4	3.05	0.44
22:DA:1931:U:HO2'	22:DA:1932:A:H8	1.66	0.44
22:DA:2023:C:H4'	22:DA:2617:U:O3'	2.17	0.44
22:DA:2039:U:H2'	22:DA:2040:G:H8	1.83	0.44
22:DA:2056:G:N2	22:DA:2057:G:N9	2.65	0.44
22:DA:2199:A:C2'	22:DA:2200:C:H6	2.18	0.44
22:DA:2525:G:C2	22:DA:2539:C:C2	3.06	0.44
22:DA:2571:U:C2'	22:DA:2572:A:OP1	2.66	0.44
22:DA:2744:G:C4	22:DA:2761:A:C2	3.05	0.44
24:DC:130:PRO:CD	24:DC:188:ARG:HG3	2.48	0.44
24:DC:250:GLN:H	24:DC:250:GLN:HG2	1.53	0.44
25:DD:1:MET:SD	25:DD:100:LEU:CD1	3.05	0.44
26:DE:126:VAL:HG13	26:DE:127:GLU:N	2.32	0.44
26:DE:135:ALA:C	26:DE:137:LYS:N	2.75	0.44
26:DE:178:VAL:HG13	26:DE:179:SER:N	2.32	0.44
28:DG:11:PRO:O	28:DG:14:VAL:HG22	2.18	0.44
31:DJ:12:LYS:HB2	31:DJ:13:ARG:H	1.60	0.44
31:DJ:48:VAL:HG12	31:DJ:49:ASP:N	2.32	0.44
33:DL:128:THR:HG22	33:DL:129:LYS:N	2.33	0.44
39:DR:30:GLY:HA2	39:DR:63:VAL:O	2.16	0.44
39:DR:39:LEU:C	39:DR:49:ILE:HG23	2.42	0.44
40:DS:29:VAL:O	40:DS:33:LEU:HB2	2.18	0.44
43:DV:21:ARG:CD	43:DV:87:GLN:HG2	2.48	0.44
46:DY:30:MET:SD	46:DY:30:MET:O	2.75	0.44
46:DY:52:ARG:C	46:DY:54:LYS:N	2.76	0.44
51:D3:24:LYS:HB3	51:D3:25:HIS:H	1.57	0.44
1:AA:19:A:O2'	1:AA:20:U:H5'	2.17	0.44
1:AA:179:A:H2'	1:AA:180:U:C5'	2.47	0.44
1:AA:246:A:C6	1:AA:282:A:N7	2.86	0.44
1:AA:291:U:C2'	1:AA:292:G:H5'	2.48	0.44
1:AA:471:U:C2'	1:AA:472:U:H5'	2.48	0.44
1:AA:499:A:O2'	1:AA:500:G:C8	2.68	0.44
1:AA:522:C:H2'	1:AA:523:A:O4'	2.18	0.44
1:AA:1067:A:H1'	1:AA:1068:G:H8	1.82	0.44
1:AA:1531:A:H2'	1:AA:1532:U:C6	2.53	0.44
2:AB:103:TRP:CZ3	2:AB:107:ARG:HD3	2.52	0.44
3:AC:2:GLN:OE1	3:AC:2:GLN:N	2.48	0.44
3:AC:174:LEU:HD12	3:AC:174:LEU:C	2.43	0.44
4:AD:84:ASN:HD22	4:AD:87:GLU:H	1.65	0.44
5:AE:81:GLN:H	5:AE:81:GLN:CD	2.25	0.44
7:AG:86:VAL:HG13	7:AG:87:PRO:HD2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:94:ARG:O	7:AG:95:ARG:C	2.61	0.44
8:AH:94:VAL:O	8:AH:95:MET:C	2.60	0.44
12:AL:2:THR:HB	12:AL:5:GLN:CG	2.41	0.44
15:AO:3:SER:O	15:AO:6:ALA:N	2.51	0.44
15:AO:86:LEU:C	15:AO:86:LEU:HD23	2.43	0.44
22:BA:28:A:C8	22:BA:513:A:N6	2.85	0.44
22:BA:58:G:C2'	22:BA:59:U:H5'	2.48	0.44
22:BA:822:G:H2'	22:BA:823:C:H6	1.82	0.44
22:BA:897:C:H5''	22:BA:898:C:OP2	2.18	0.44
22:BA:1016:G:H2'	22:BA:1017:G:O5'	2.18	0.44
22:BA:1038:G:N2	22:BA:1118:C:C2	2.85	0.44
22:BA:1420:A:H2'	22:BA:2211:A:H62	1.83	0.44
22:BA:1790:C:H2'	22:BA:1791:A:C5	2.53	0.44
22:BA:1941:C:C6	22:BA:1941:C:C5'	2.94	0.44
22:BA:2021:C:OP1	48:B0:8:THR:HG21	2.16	0.44
22:BA:2556:C:H2'	22:BA:2557:G:O4'	2.17	0.44
22:BA:2729:G:H5''	22:BA:2729:G:C8	2.48	0.44
22:BA:2757:A:N1	28:BG:66:THR:CG2	2.68	0.44
25:BD:9:VAL:CG2	25:BD:26:VAL:HB	2.33	0.44
26:BE:83:VAL:CG1	26:BE:86:ALA:CA	2.95	0.44
27:BF:64:PRO:HA	27:BF:88:VAL:CG2	2.47	0.44
28:BG:45:ALA:O	28:BG:46:ASP:CB	2.65	0.44
28:BG:148:ARG:HA	28:BG:161:VAL:HB	1.99	0.44
29:BH:68:ARG:HH21	29:BH:69:ALA:HA	1.83	0.44
34:BM:34:LYS:HG2	34:BM:35:ALA:H	1.82	0.44
39:BR:102:SER:O	39:BR:103:ALA:O	2.36	0.44
40:BS:46:LEU:O	40:BS:50:VAL:HG23	2.18	0.44
40:BS:65:ASP:C	40:BS:67:ASP:N	2.75	0.44
40:BS:83:LYS:C	40:BS:84:ARG:CD	2.90	0.44
41:BT:43:ILE:O	41:BT:43:ILE:CG1	2.63	0.44
45:BX:55:MET:HE2	45:BX:55:MET:HB3	1.93	0.44
50:B2:8:SER:O	50:B2:12:ARG:HB3	2.18	0.44
53:CA:160:A:C2	53:CA:343:U:H1'	2.53	0.44
53:CA:315:A:C5	53:CA:330:C:H5''	2.51	0.44
53:CA:352:C:H6	53:CA:352:C:H5''	1.82	0.44
53:CA:683:G:H2'	53:CA:684:U:O4'	2.18	0.44
53:CA:752:G:C1'	53:CA:754:C:H41	2.28	0.44
53:CA:1026:G:H22	53:CA:1036:A:N6	2.15	0.44
53:CA:1232:U:C2	53:CA:1233:G:C8	3.06	0.44
53:CA:1296:C:C5	53:CA:1297:G:N2	2.85	0.44
53:CA:1382:C:H4'	54:CG:78:ARG:HH21	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1426:G:O2'	53:CA:1427:C:H5'	2.18	0.44
53:CA:1442:G:H2'	53:CA:1443:C:C6	2.52	0.44
53:CA:1457:G:O2'	20:CT:26:MET:CG	2.66	0.44
53:CA:1525:G:OP1	21:CU:37:TYR:HD1	2.00	0.44
2:CB:214:GLY:HA2	2:CB:217:ALA:HB3	1.99	0.44
4:CD:127:ARG:CZ	4:CD:127:ARG:HB2	2.47	0.44
6:CF:18:VAL:HG13	6:CF:22:ILE:HD11	1.99	0.44
9:CI:29:ILE:HG23	9:CI:29:ILE:O	2.18	0.44
10:CJ:37:ARG:HB3	10:CJ:75:ASP:HB3	2.00	0.44
10:CJ:86:ALA:O	10:CJ:87:LEU:HB2	2.17	0.44
11:CK:103:GLY:O	11:CK:104:PHE:C	2.60	0.44
12:CL:5:GLN:HG3	12:CL:9:LYS:HZ1	1.81	0.44
12:CL:32:VAL:HG12	12:CL:32:VAL:O	2.16	0.44
12:CL:120:ARG:HG2	12:CL:121:PRO:O	2.17	0.44
56:CP:3:THR:C	56:CP:4:ILE:HD12	2.42	0.44
17:CQ:22:VAL:HG12	17:CQ:23:ALA:N	2.32	0.44
20:CT:34:VAL:HG22	20:CT:49:ALA:C	2.42	0.44
22:DA:189:G:O2'	22:DA:190:A:O5'	2.35	0.44
22:DA:333:G:N3	22:DA:334:C:C6	2.85	0.44
22:DA:497:A:H2'	22:DA:498:G:H1'	1.99	0.44
22:DA:570:G:O6	22:DA:2499:C:OP1	2.36	0.44
22:DA:809:G:H2'	22:DA:810:U:O5'	2.17	0.44
22:DA:816:C:H2'	22:DA:817:C:H6	1.82	0.44
22:DA:821:A:C8	22:DA:946:C:C5	3.06	0.44
22:DA:975:A:H62	22:DA:989:G:H1'	1.82	0.44
22:DA:1021:A:H2'	22:DA:1021:A:H8	1.61	0.44
22:DA:1053:C:H42	22:DA:1054:A:N6	2.15	0.44
22:DA:1059:G:O2'	30:DI:131:THR:HG21	2.18	0.44
22:DA:1323:C:C4	22:DA:1324:G:N7	2.85	0.44
22:DA:1400:U:H2'	22:DA:1401:G:H8	1.83	0.44
22:DA:1419:A:C2	22:DA:1579:A:C2	3.06	0.44
22:DA:1516:G:C2'	22:DA:1517:G:H5'	2.48	0.44
22:DA:1553:A:C8	22:DA:1555:G:O6	2.71	0.44
22:DA:1688:U:O2	22:DA:1700:A:H5'	2.18	0.44
22:DA:1734:G:C4	22:DA:1735:A:N7	2.85	0.44
22:DA:1796:U:H2'	22:DA:1797:G:C8	2.53	0.44
22:DA:2057:G:H2'	22:DA:2058:A:O4'	2.17	0.44
22:DA:2335:A:C4	22:DA:2337:G:N7	2.86	0.44
22:DA:2415:G:C2	22:DA:2416:C:C2	3.06	0.44
22:DA:2590:A:O3'	24:DC:237:ARG:HD2	2.17	0.44
57:DB:24:G:H4'	57:DB:26:C:H5	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:69:G:H3'	57:DB:70:C:H6	1.78	0.44
24:DC:92:LEU:HA	24:DC:92:LEU:HD12	1.74	0.44
25:DD:163:GLY:O	25:DD:164:GLN:C	2.60	0.44
26:DE:179:SER:HA	26:DE:182:ALA:HB3	2.00	0.44
31:DJ:25:LEU:CD1	31:DJ:64:VAL:HA	2.40	0.44
31:DJ:44:TYR:O	31:DJ:45:THR:CB	2.65	0.44
31:DJ:97:PRO:C	31:DJ:99:ARG:N	2.75	0.44
31:DJ:125:TYR:CE2	31:DJ:132:HIS:CD2	3.04	0.44
34:DM:43:ALA:HA	34:DM:46:ILE:HD11	1.99	0.44
35:DN:45:ARG:C	35:DN:47:VAL:N	2.75	0.44
41:DT:67:VAL:O	41:DT:68:LYS:CG	2.65	0.44
42:DU:73:ASN:CB	42:DU:95:PHE:CE2	2.98	0.44
44:DW:18:LYS:HB2	44:DW:18:LYS:NZ	2.32	0.44
45:DX:67:LEU:O	45:DX:77:TYR:OH	2.35	0.44
1:AA:240:G:OP1	1:AA:240:G:H4'	2.18	0.44
1:AA:293:G:C2'	1:AA:294:U:H5'	2.47	0.44
1:AA:294:U:H2'	1:AA:295:C:C6	2.53	0.44
1:AA:469:C:H2'	1:AA:470:C:H6	1.82	0.44
1:AA:479:U:O2'	1:AA:480:U:H5'	2.18	0.44
1:AA:512:U:O2'	1:AA:513:C:H6	1.99	0.44
1:AA:579:A:C2	1:AA:763:G:C2	3.06	0.44
1:AA:747:A:C6	1:AA:748:G:C6	3.05	0.44
1:AA:765:G:H2'	1:AA:812:G:H21	1.81	0.44
1:AA:969:A:H2'	1:AA:970:C:C6	2.53	0.44
1:AA:1227:A:O2'	1:AA:1228:C:C5'	2.66	0.44
1:AA:1380:U:C4	7:AG:2:ARG:HA	2.53	0.44
5:AE:59:ILE:HD12	5:AE:60:GLN:N	2.32	0.44
6:AF:67:PRO:C	6:AF:69:GLU:H	2.26	0.44
9:AI:11:ARG:O	9:AI:11:ARG:HG3	2.18	0.44
9:AI:46:VAL:HG21	9:AI:75:ALA:HB1	2.00	0.44
9:AI:79:ARG:NH1	9:AI:102:PHE:CD1	2.86	0.44
11:AK:39:ASN:O	11:AK:40:ALA:HB3	2.17	0.44
15:AO:2:LEU:HD12	15:AO:2:LEU:HA	1.85	0.44
16:AP:46:LYS:NZ	16:AP:48:GLU:HB3	2.33	0.44
16:AP:59:HIS:CE1	16:AP:63:GLN:NE2	2.86	0.44
17:AQ:80:LYS:HB2	17:AQ:80:LYS:NZ	2.12	0.44
20:AT:4:LYS:O	20:AT:6:ALA:N	2.51	0.44
22:BA:322:A:H1'	22:BA:339:U:O2	2.17	0.44
22:BA:936:A:C4	22:BA:937:C:C5	3.05	0.44
22:BA:1198:U:O2'	38:BQ:4:LYS:HE3	2.17	0.44
22:BA:1213:A:O2'	22:BA:1214:A:H5'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1257:C:O2'	26:BE:79:ARG:N	2.51	0.44
22:BA:1662:U:C2'	22:BA:1663:G:H5'	2.48	0.44
22:BA:1669:A:O3'	22:BA:2549:G:H5'	2.17	0.44
22:BA:1936:A:H5''	22:BA:1937:A:H5'	2.00	0.44
22:BA:2407:A:H2'	22:BA:2408:U:H6	1.80	0.44
22:BA:2477:U:O5'	22:BA:2477:U:H6	2.00	0.44
22:BA:2699:C:H2'	22:BA:2700:A:O4'	2.18	0.44
22:BA:2715:C:C4	22:BA:2716:C:C5	3.06	0.44
24:BC:212:TRP:O	24:BC:212:TRP:CD1	2.71	0.44
25:BD:62:LYS:HB2	25:BD:63:PRO:HD3	2.00	0.44
25:BD:114:LYS:N	25:BD:114:LYS:CE	2.80	0.44
26:BE:48:THR:C	26:BE:50:ALA:N	2.74	0.44
29:BH:9:VAL:HB	29:BH:13:GLY:HA3	2.00	0.44
32:BK:108:ARG:HH11	32:BK:108:ARG:CG	2.30	0.44
33:BL:82:LEU:HG	33:BL:90:VAL:HG21	2.00	0.44
34:BM:6:ARG:HD2	34:BM:8:LYS:HZ2	1.81	0.44
34:BM:97:GLN:HB2	34:BM:98:PRO:HD2	2.00	0.44
34:BM:108:VAL:HA	34:BM:109:PRO:HD3	1.82	0.44
34:BM:133:LYS:NZ	34:BM:133:LYS:HB2	2.32	0.44
37:BP:52:ARG:HH11	37:BP:52:ARG:CG	2.31	0.44
41:BT:2:ILE:HG13	41:BT:3:ARG:CZ	2.48	0.44
41:BT:19:LYS:O	41:BT:23:ALA:N	2.43	0.44
41:BT:27:SER:O	41:BT:28:ASN:CG	2.61	0.44
42:BU:10:VAL:CG2	42:BU:69:VAL:HB	2.48	0.44
48:B0:12:ARG:O	48:B0:13:GLY:C	2.60	0.44
50:B2:42:LEU:H	50:B2:42:LEU:CD2	2.31	0.44
53:CA:43:C:C2'	53:CA:44:A:H5'	2.47	0.44
53:CA:68:G:H21	53:CA:152:A:C1'	2.27	0.44
53:CA:76:G:N2	53:CA:95:C:N3	2.65	0.44
53:CA:79:G:N2	53:CA:91:U:C2	2.86	0.44
53:CA:202:G:H21	53:CA:465:A:H61	1.65	0.44
53:CA:331:G:C2'	53:CA:332:G:OP1	2.64	0.44
53:CA:588:G:N2	53:CA:589:U:H1'	2.32	0.44
53:CA:668:G:C2'	53:CA:669:G:H5'	2.48	0.44
53:CA:723:U:C4'	21:CU:48:LYS:HD2	2.48	0.44
53:CA:759:A:H2'	53:CA:760:G:H5'	2.00	0.44
53:CA:1005:A:C8	53:CA:1006:G:H1'	2.53	0.44
2:CB:162:VAL:HG11	2:CB:172:ILE:HD11	1.98	0.44
6:CF:18:VAL:HB	6:CF:19:PRO:CD	2.47	0.44
54:CG:72:VAL:CG1	54:CG:144:ALA:HB1	2.48	0.44
8:CH:58:LEU:HD21	8:CH:60:LEU:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:CI:113:LYS:HG2	9:CI:114:LYS:N	2.32	0.44
11:CK:126:ARG:HB2	21:CU:33:ARG:NE	2.32	0.44
14:CN:47:LEU:HD11	14:CN:50:LEU:HD21	2.00	0.44
56:CP:43:ALA:HB1	56:CP:46:LYS:HZ2	1.81	0.44
56:CP:60:TRP:O	56:CP:61:VAL:C	2.59	0.44
19:CS:4:LEU:HB3	19:CS:5:LYS:H	1.56	0.44
19:CS:38:THR:CA	19:CS:69:LYS:HD3	2.48	0.44
22:DA:241:A:C1'	22:DA:243:U:C5	2.98	0.44
22:DA:406:G:H2'	22:DA:407:G:C8	2.53	0.44
22:DA:465:G:O4'	50:D2:16:HIS:CD2	2.71	0.44
22:DA:564:C:C6	22:DA:564:C:C3'	3.01	0.44
22:DA:604:G:O6	22:DA:625:G:C6	2.71	0.44
22:DA:780:G:C6	22:DA:782:A:C2	3.05	0.44
22:DA:821:A:H2'	22:DA:946:C:H5''	2.00	0.44
22:DA:850:U:HO2'	47:DZ:46:MET:HE3	1.82	0.44
22:DA:909:A:C6	22:DA:912:C:C2	3.06	0.44
22:DA:1210:G:H4'	22:DA:1211:C:O5'	2.17	0.44
22:DA:1339:G:C5'	22:DA:1393:A:N1	2.80	0.44
22:DA:1776:G:C5	22:DA:1777:U:C5	3.06	0.44
22:DA:1857:G:N3	22:DA:1884:G:N1	2.65	0.44
22:DA:1869:G:C2	22:DA:1873:G:N1	2.85	0.44
22:DA:1906:G:N1	22:DA:1907:G:C5	2.86	0.44
22:DA:2439:A:C8	22:DA:2586:U:H4'	2.53	0.44
22:DA:2760:C:H2'	22:DA:2760:C:O2	2.18	0.44
24:DC:105:ALA:HA	24:DC:106:PRO:HD3	1.67	0.44
24:DC:159:THR:N	24:DC:194:VAL:HG13	2.33	0.44
25:DD:14:ILE:HG23	25:DD:14:ILE:O	2.18	0.44
25:DD:121:THR:HG21	25:DD:127:PHE:CD1	2.53	0.44
26:DE:119:ILE:HD11	26:DE:143:LEU:CD2	2.47	0.44
58:DF:35:LEU:O	58:DF:87:LYS:HA	2.17	0.44
28:DG:83:THR:CA	28:DG:84:LYS:HD3	2.48	0.44
30:DI:104:GLN:HA	30:DI:107:GLU:HB3	1.99	0.44
32:DK:71:ARG:CB	32:DK:72:PRO:CD	2.63	0.44
34:DM:66:ARG:HD2	34:DM:101:VAL:CG1	2.47	0.44
34:DM:105:MET:HA	34:DM:105:MET:HE3	1.98	0.44
36:DO:69:ASP:O	36:DO:70:ALA:C	2.60	0.44
37:DP:87:ARG:NH1	37:DP:111:GLU:HG3	2.33	0.44
39:DR:96:VAL:HG23	39:DR:98:ILE:CD1	2.48	0.44
42:DU:41:VAL:HB	42:DU:42:LYS:H	1.67	0.44
46:DY:5:GLU:O	46:DY:6:LEU:HG	2.18	0.44
48:D0:53:VAL:O	48:D0:54:ILE:O	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:87:C:O2'	1:AA:88:U:C4'	2.65	0.44
1:AA:813:U:O2'	1:AA:814:A:H5''	2.18	0.44
1:AA:935:A:N6	7:AG:2:ARG:HD2	2.33	0.44
1:AA:961:U:O2'	1:AA:962:C:H5'	2.17	0.44
1:AA:1117:A:O3'	9:AI:105:ARG:NE	2.51	0.44
1:AA:1196:A:O2'	1:AA:1197:A:P	2.75	0.44
2:AB:56:LEU:HB2	2:AB:183:PHE:CE1	2.53	0.44
2:AB:88:GLN:NE2	2:AB:88:GLN:O	2.48	0.44
2:AB:89:PHE:CB	2:AB:149:GLY:CA	2.81	0.44
3:AC:9:ILE:CG2	3:AC:10:ARG:HH11	2.31	0.44
4:AD:171:GLU:O	4:AD:179:GLY:HA2	2.18	0.44
4:AD:175:GLY:C	4:AD:176:LYS:HD3	2.43	0.44
7:AG:119:LEU:HD23	7:AG:119:LEU:C	2.43	0.44
8:AH:88:LYS:C	8:AH:90:GLU:N	2.75	0.44
12:AL:50:LYS:N	12:AL:50:LYS:CD	2.81	0.44
13:AM:94:LEU:HB3	13:AM:95:PRO:HD2	1.99	0.44
14:AN:44:VAL:C	14:AN:46:LYS:H	2.26	0.44
15:AO:65:LEU:HD23	15:AO:65:LEU:N	2.33	0.44
22:BA:173:A:H2'	22:BA:174:U:H6	1.83	0.44
22:BA:245:G:O6	51:B3:7:ARG:HG3	2.18	0.44
22:BA:467:G:N7	50:B2:39:ARG:NH2	2.60	0.44
22:BA:651:G:C6	22:BA:652:U:C4	3.06	0.44
22:BA:959:A:H62	34:BM:82:MET:CE	2.29	0.44
22:BA:988:A:H2'	22:BA:989:G:O5'	2.17	0.44
22:BA:1079:C:C2	22:BA:1080:A:C8	3.05	0.44
22:BA:1241:A:C2'	22:BA:1242:U:H5'	2.48	0.44
22:BA:1257:C:H5'	26:BE:78:TRP:CH2	2.53	0.44
22:BA:1671:U:O2	22:BA:1673:G:C8	2.71	0.44
22:BA:2063:C:O2'	22:BA:2064:C:H5'	2.18	0.44
22:BA:2378:A:N7	22:BA:2379:G:H1'	2.33	0.44
25:BD:16:THR:O	25:BD:17:GLU:C	2.60	0.44
27:BF:30:VAL:HG11	27:BF:96:TRP:CH2	2.52	0.44
27:BF:111:ARG:HB3	27:BF:112:ASP:H	1.40	0.44
28:BG:39:ALA:HB1	28:BG:57:TYR:CD1	2.53	0.44
28:BG:116:LEU:N	28:BG:116:LEU:HD13	2.33	0.44
29:BH:18:GLN:O	29:BH:18:GLN:HG3	2.18	0.44
30:BI:107:GLU:HA	30:BI:110:GLN:HB3	1.98	0.44
31:BJ:11:VAL:HG11	31:BJ:50:THR:HA	2.00	0.44
31:BJ:43:GLU:O	31:BJ:45:THR:C	2.60	0.44
31:BJ:76:HIS:CD2	31:BJ:85:LYS:HB2	2.53	0.44
31:BJ:97:PRO:O	31:BJ:98:GLU:C	2.59	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BK:107:LEU:HD12	32:BK:107:LEU:HA	1.70	0.44
35:BN:38:LEU:HD11	35:BN:42:LYS:HE3	2.00	0.44
36:BO:54:VAL:O	36:BO:54:VAL:CG2	2.65	0.44
37:BP:3:ILE:CD1	37:BP:3:ILE:C	2.87	0.44
37:BP:37:LYS:HG2	37:BP:37:LYS:O	2.17	0.44
44:BW:19:ARG:HH12	44:BW:22:VAL:HG11	1.80	0.44
44:BW:23:LYS:HD2	44:BW:24:ARG:CB	2.47	0.44
49:B1:16:THR:HG21	49:B1:41:VAL:CG2	2.46	0.44
53:CA:182:A:O2'	53:CA:183:C:H2'	2.18	0.44
53:CA:327:A:H1'	53:CA:329:A:O4'	2.18	0.44
53:CA:386:C:N4	53:CA:387:U:C4	2.86	0.44
53:CA:404:G:C2	53:CA:405:U:C2	3.06	0.44
53:CA:634:C:H2'	53:CA:635:A:O4'	2.16	0.44
53:CA:945:G:N2	53:CA:1334:G:H4'	2.33	0.44
53:CA:995:C:O2'	53:CA:996:A:C5'	2.66	0.44
53:CA:1052:U:O2'	53:CA:1055:A:P	2.76	0.44
2:CB:88:GLN:C	2:CB:89:PHE:CG	2.96	0.44
2:CB:110:ILE:HD13	2:CB:151:LYS:CA	2.34	0.44
2:CB:130:LYS:HA	2:CB:130:LYS:HD3	1.80	0.44
2:CB:157:PRO:O	2:CB:180:ILE:HD12	2.18	0.44
2:CB:216:VAL:C	2:CB:218:ALA:H	2.24	0.44
3:CC:9:ILE:HD12	14:CN:97:LYS:CD	2.42	0.44
3:CC:89:VAL:O	3:CC:93:ILE:HG22	2.17	0.44
6:CF:54:LEU:HD12	6:CF:56:LYS:H	1.83	0.44
54:CG:22:LEU:C	54:CG:25:PHE:H	2.26	0.44
54:CG:86:VAL:HA	54:CG:87:PRO:HD2	1.74	0.44
10:CJ:49:PHE:C	10:CJ:50:THR:CG2	2.91	0.44
12:CL:82:ARG:HG2	12:CL:82:ARG:NH1	2.32	0.44
15:CO:81:ILE:O	15:CO:85:GLY:N	2.49	0.44
20:CT:49:ALA:O	20:CT:52:GLU:HB3	2.17	0.44
20:CT:84:LYS:HB2	20:CT:84:LYS:NZ	2.32	0.44
22:DA:28:A:C2	22:DA:513:A:H1'	2.53	0.44
22:DA:195:A:C6	22:DA:198:C:C6	3.06	0.44
22:DA:227:A:C5'	22:DA:229:C:N4	2.81	0.44
22:DA:244:A:C2'	22:DA:245:G:O5'	2.65	0.44
22:DA:269:C:C2	22:DA:270:A:C8	3.05	0.44
22:DA:352:A:H2'	22:DA:353:C:H4'	1.98	0.44
22:DA:407:G:O2'	22:DA:408:G:O5'	2.32	0.44
22:DA:531:C:P	22:DA:532:A:H8	2.40	0.44
22:DA:532:A:C6	22:DA:2020:A:H1'	2.53	0.44
22:DA:605:G:O2'	22:DA:606:U:O5'	2.36	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:653:U:O2	22:DA:653:U:H2'	2.18	0.44
22:DA:654:A:C2'	22:DA:655:A:O5'	2.66	0.44
22:DA:739:A:C4'	22:DA:740:C:OP1	2.52	0.44
22:DA:754:U:H2'	22:DA:755:U:H6	1.82	0.44
22:DA:827:U:H2'	22:DA:2068:U:C2	2.52	0.44
22:DA:1039:A:C5	22:DA:1040:A:N7	2.85	0.44
22:DA:1079:C:N3	22:DA:1088:A:C2	2.84	0.44
22:DA:1229:C:H2'	22:DA:1230:A:C8	2.52	0.44
22:DA:1275:A:N6	35:DN:15:SER:O	2.51	0.44
22:DA:1286:A:C5	22:DA:1289:C:N4	2.86	0.44
22:DA:1843:C:O2'	24:DC:253:GLY:HA3	2.18	0.44
22:DA:1900:A:C6	22:DA:1970:A:N7	2.86	0.44
22:DA:2285:C:C5	49:D1:5:ARG:NH2	2.85	0.44
22:DA:2350:C:C2'	22:DA:2351:G:H5'	2.47	0.44
22:DA:2371:G:O3'	49:D1:44:GLN:NE2	2.51	0.44
22:DA:2466:C:O2'	22:DA:2467:C:H5'	2.17	0.44
22:DA:2520:C:C2'	22:DA:2521:C:H6	2.29	0.44
22:DA:2529:G:C4'	28:DG:174:LYS:HD3	2.40	0.44
22:DA:2575:C:C5'	25:DD:148:GLN:O	2.66	0.44
22:DA:2645:G:O2'	22:DA:2646:C:OP1	2.32	0.44
22:DA:2654:A:N3	22:DA:2656:U:C4	2.86	0.44
22:DA:2812:G:N2	22:DA:2889:C:C2	2.85	0.44
22:DA:2815:C:H2'	22:DA:2816:G:O4'	2.18	0.44
24:DC:191:LEU:HD22	24:DC:191:LEU:H	1.80	0.44
26:DE:129:PRO:O	26:DE:130:LYS:HD3	2.18	0.44
58:DF:123:GLY:H	58:DF:126:ASN:ND2	2.16	0.44
58:DF:129:MET:HG3	58:DF:153:ILE:HD12	1.99	0.44
30:DI:8:VAL:C	30:DI:9:LYS:HG2	2.43	0.44
30:DI:54:ILE:HD12	30:DI:54:ILE:N	2.33	0.44
31:DJ:22:GLY:O	31:DJ:23:LYS:C	2.61	0.44
31:DJ:38:GLY:O	31:DJ:43:GLU:HB2	2.18	0.44
31:DJ:84:ILE:O	31:DJ:84:ILE:CG2	2.65	0.44
32:DK:41:ILE:HG22	32:DK:58:LEU:O	2.18	0.44
32:DK:88:ASN:O	32:DK:89:ASN:HB3	2.17	0.44
32:DK:93:GLN:HA	32:DK:94:PRO:HD2	1.75	0.44
34:DM:58:LYS:O	34:DM:60:GLN:N	2.49	0.44
35:DN:16:HIS:O	35:DN:20:MET:N	2.47	0.44
35:DN:57:THR:O	35:DN:80:PHE:CD1	2.67	0.44
36:DO:12:THR:O	36:DO:12:THR:HG22	2.18	0.44
36:DO:25:ARG:HB3	36:DO:93:ASP:CB	2.47	0.44
36:DO:56:LYS:HD3	36:DO:56:LYS:O	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:19:PHE:N	37:DP:19:PHE:HD2	2.16	0.44
39:DR:38:VAL:HG22	39:DR:40:MET:H	1.82	0.44
39:DR:72:VAL:O	39:DR:72:VAL:HG23	2.18	0.44
40:DS:36:LEU:O	40:DS:38:TYR:N	2.51	0.44
43:DV:41:GLU:O	43:DV:42:LEU:HD23	2.18	0.44
1:AA:77:A:H8	1:AA:77:A:OP2	2.00	0.44
1:AA:103:U:O2	1:AA:103:U:H2'	2.18	0.44
1:AA:204:G:H1'	1:AA:465:A:H2	1.75	0.44
1:AA:431:A:C2	1:AA:432:A:H1'	2.53	0.44
1:AA:706:A:HO2'	11:AK:30:ILE:HD11	1.73	0.44
1:AA:1157:A:H1'	1:AA:1181:G:H22	1.78	0.44
2:AB:53:LEU:HA	2:AB:56:LEU:CB	2.44	0.44
3:AC:13:ILE:O	3:AC:14:VAL:C	2.61	0.44
4:AD:102:TYR:CD2	4:AD:102:TYR:C	2.96	0.44
4:AD:115:GLN:CD	4:AD:119:HIS:HE1	2.25	0.44
4:AD:138:PRO:HA	4:AD:181:PHE:HD2	1.82	0.44
10:AJ:26:VAL:O	10:AJ:30:LYS:HG2	2.17	0.44
11:AK:22:ILE:HD11	11:AK:85:VAL:HG22	2.00	0.44
14:AN:50:LEU:O	14:AN:51:PRO:C	2.61	0.44
15:AO:68:TYR:CE2	15:AO:72:LYS:HG3	2.53	0.44
15:AO:84:LEU:HD12	15:AO:84:LEU:HA	1.85	0.44
20:AT:75:LYS:HB3	20:AT:75:LYS:HZ2	1.83	0.44
22:BA:94:A:H2'	22:BA:95:A:C8	2.53	0.44
22:BA:100:U:C2	22:BA:101:A:N6	2.86	0.44
22:BA:226:A:C2'	22:BA:227:A:H5'	2.48	0.44
22:BA:591:U:H1'	51:B3:1:PRO:N	2.32	0.44
22:BA:1013:C:H2'	22:BA:1014:A:H8	1.82	0.44
22:BA:1062:G:C4	22:BA:1088:A:N7	2.86	0.44
22:BA:1075:C:H2'	22:BA:1076:C:C6	2.53	0.44
22:BA:1141:U:OP2	31:BJ:65:THR:HG21	2.18	0.44
22:BA:1360:G:O6	22:BA:1372:U:C2	2.71	0.44
22:BA:1378:A:H2'	62:BA:3744:HOH:O	2.17	0.44
22:BA:1542:U:C2'	22:BA:1543:G:H5'	2.48	0.44
22:BA:1603:A:O2'	22:BA:1604:C:H5'	2.17	0.44
22:BA:1735:A:N3	22:BA:1736:U:C6	2.85	0.44
22:BA:1835:G:N3	22:BA:1931:U:C5	2.86	0.44
22:BA:2140:G:H2'	22:BA:2141:G:C8	2.53	0.44
22:BA:2209:G:C2	22:BA:2216:G:C2	3.06	0.44
22:BA:2671:G:C6	22:BA:2672:U:C4	3.06	0.44
23:BB:89:U:OP2	23:BB:89:U:H4'	2.18	0.44
25:BD:33:ARG:NH1	25:BD:53:GLY:O	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:36:ALA:C	26:BE:37:ALA:O	2.57	0.44
34:BM:136:MET:CE	43:BV:57:TYR:CD2	2.96	0.44
37:BP:63:ILE:CA	37:BP:68:GLY:HA2	2.39	0.44
38:BQ:111:LYS:NZ	39:BR:50:GLY:CA	2.78	0.44
41:BT:48:GLN:HA	41:BT:48:GLN:NE2	2.21	0.44
42:BU:25:LYS:HG2	42:BU:36:GLU:HB3	2.00	0.44
42:BU:82:VAL:HG12	42:BU:83:GLY:N	2.33	0.44
43:BV:5:ASN:ND2	43:BV:5:ASN:N	2.64	0.44
43:BV:14:LYS:O	43:BV:15:GLY:C	2.57	0.44
44:BW:16:GLU:OE2	44:BW:16:GLU:HA	2.17	0.44
44:BW:37:VAL:O	44:BW:38:ARG:CB	2.66	0.44
47:BZ:43:ILE:HG13	47:BZ:44:ARG:N	2.33	0.44
53:CA:32:A:C2	53:CA:33:A:C5	3.06	0.44
53:CA:98:A:H2'	53:CA:99:C:H6	1.82	0.44
53:CA:163:C:H2'	53:CA:164:G:O5'	2.17	0.44
53:CA:755:G:C2	53:CA:756:C:C6	3.05	0.44
53:CA:927:G:C2	53:CA:1391:U:O2	2.71	0.44
53:CA:951:G:OP2	55:CM:100:ARG:NH2	2.51	0.44
53:CA:1047:G:O2'	53:CA:1216:A:OP1	2.36	0.44
53:CA:1231:G:H2'	53:CA:1232:U:H6	1.82	0.44
2:CB:133:ALA:HA	2:CB:137:THR:HG21	2.00	0.44
5:CE:80:LEU:O	5:CE:80:LEU:CD1	2.63	0.44
8:CH:12:ARG:HH12	8:CH:27:PRO:HD2	1.83	0.44
9:CI:109:GLN:CG	9:CI:110:VAL:N	2.81	0.44
11:CK:15:VAL:O	11:CK:16:SER:CB	2.66	0.44
12:CL:42:LYS:CG	12:CL:43:LYS:H	2.13	0.44
55:CM:103:THR:CG2	55:CM:104:ASN:N	2.80	0.44
56:CP:43:ALA:HB1	56:CP:46:LYS:NZ	2.33	0.44
19:CS:5:LYS:HB2	19:CS:6:LYS:H	1.56	0.44
21:CU:39:LYS:O	21:CU:43:GLU:HB2	2.18	0.44
22:DA:129:C:O2'	22:DA:130:C:O4'	2.35	0.44
22:DA:233:A:H61	22:DA:428:A:H61	1.64	0.44
22:DA:303:G:N1	22:DA:315:G:C6	2.86	0.44
22:DA:310:A:C2'	22:DA:311:A:H8	2.31	0.44
22:DA:366:C:H2'	22:DA:367:G:O5'	2.18	0.44
22:DA:414:C:H4'	22:DA:1879:C:O2	2.18	0.44
22:DA:422:A:C2	22:DA:423:A:C5	3.06	0.44
22:DA:655:A:O2'	22:DA:656:G:N7	2.49	0.44
22:DA:726:G:O2'	22:DA:727:A:OP2	2.25	0.44
22:DA:804:A:H2'	22:DA:806:C:N4	2.32	0.44
22:DA:1213:A:H2'	22:DA:1214:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1273:U:H6	22:DA:1273:U:H2'	1.61	0.44
22:DA:1275:A:N3	22:DA:1275:A:C2'	2.81	0.44
22:DA:1288:G:H2'	22:DA:1288:G:N3	2.33	0.44
22:DA:1394:U:H3'	22:DA:1394:U:H6	1.83	0.44
22:DA:1476:U:H2'	22:DA:1477:A:H8	1.82	0.44
22:DA:1809:A:C6	22:DA:1810:A:C6	3.06	0.44
22:DA:1925:C:H3'	22:DA:1925:C:C6	2.52	0.44
22:DA:2053:G:C5'	25:DD:150:GLN:H	2.30	0.44
22:DA:2591:C:H2'	22:DA:2592:G:C8	2.53	0.44
22:DA:2822:G:H5''	25:DD:164:GLN:NE2	2.29	0.44
28:DG:70:LEU:O	28:DG:74:MET:HB2	2.18	0.44
28:DG:103:ASN:HA	28:DG:112:VAL:HB	2.00	0.44
30:DI:64:ARG:HB2	30:DI:64:ARG:CZ	2.48	0.44
32:DK:121:GLU:HB3	32:DK:122:VAL:H	1.51	0.44
33:DL:111:ILE:O	33:DL:131:ALA:CB	2.66	0.44
38:DQ:10:ARG:HB2	38:DQ:10:ARG:NH1	2.32	0.44
38:DQ:64:ILE:O	38:DQ:68:ALA:HB2	2.17	0.44
39:DR:62:GLU:OE1	39:DR:97:LYS:HD2	2.17	0.44
42:DU:6:ARG:CG	42:DU:7:ASP:N	2.73	0.44
46:DY:58:ASN:O	46:DY:61:ALA:HB2	2.17	0.44
1:AA:192:A:C5'	1:AA:193:C:OP2	2.66	0.43
1:AA:425:G:H2'	1:AA:426:U:O4'	2.17	0.43
1:AA:500:G:H2'	1:AA:501:C:H6	1.82	0.43
1:AA:517:G:H22	1:AA:533:A:P	2.41	0.43
1:AA:620:C:N3	4:AD:131:ILE:HG21	2.31	0.43
1:AA:740:U:OP1	15:AO:37:HIS:HE1	2.00	0.43
1:AA:792:A:C4	1:AA:794:A:C6	3.06	0.43
1:AA:815:A:C4'	1:AA:817:C:N4	2.81	0.43
1:AA:923:A:C6	1:AA:924:C:C4	3.05	0.43
1:AA:1323:G:O2'	1:AA:1324:A:H8	2.01	0.43
1:AA:1365:G:O2'	1:AA:1366:C:C5'	2.66	0.43
3:AC:136:ALA:O	3:AC:140:ALA:HB2	2.18	0.43
5:AE:83:PRO:HB3	5:AE:96:GLN:HE22	1.78	0.43
11:AK:41:LEU:HD22	11:AK:76:TYR:CD2	2.53	0.43
11:AK:51:PHE:CZ	11:AK:64:VAL:HG11	2.51	0.43
11:AK:90:PRO:C	11:AK:92:ARG:H	2.26	0.43
11:AK:110:THR:HG22	21:AU:4:LYS:HA	1.99	0.43
12:AL:71:HIS:ND1	12:AL:71:HIS:C	2.76	0.43
14:AN:79:SER:O	14:AN:80:ARG:C	2.61	0.43
15:AO:44:GLU:O	15:AO:45:HIS:HB2	2.17	0.43
22:BA:958:U:H5''	34:BM:14:LYS:CE	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1507:C:C2	22:BA:1508:A:C2	3.06	0.43
22:BA:1869:G:N2	22:BA:1873:G:C6	2.86	0.43
22:BA:2403:C:C4	22:BA:2404:U:C5	3.06	0.43
22:BA:2480:C:H2'	22:BA:2480:C:O2	2.18	0.43
22:BA:2517:C:C5	22:BA:2542:A:C5	3.06	0.43
22:BA:2567:G:H2'	22:BA:2568:U:H6	1.77	0.43
22:BA:2835:A:N6	22:BA:2878:U:H2'	2.33	0.43
23:BB:17:C:H2'	23:BB:18:G:O4'	2.18	0.43
23:BB:65:U:O4	23:BB:108:A:H1'	2.17	0.43
24:BC:124:LYS:HG3	24:BC:125:PRO:HD2	1.99	0.43
27:BF:39:VAL:H	27:BF:85:GLY:HA2	1.82	0.43
29:BH:72:ILE:O	29:BH:72:ILE:HG12	2.16	0.43
30:BI:100:ILE:HG22	30:BI:101:SER:N	2.23	0.43
31:BJ:20:ALA:O	31:BJ:21:THR:O	2.36	0.43
31:BJ:113:PRO:HD3	31:BJ:116:ARG:HH12	1.83	0.43
40:BS:2:GLU:C	40:BS:3:THR:CG2	2.91	0.43
40:BS:13:SER:OG	40:BS:16:LYS:HB2	2.18	0.43
44:BW:24:ARG:HD3	44:BW:65:LYS:HD3	1.99	0.43
53:CA:28:A:H2'	53:CA:29:U:O4'	2.18	0.43
53:CA:67:C:O2'	53:CA:68:G:OP2	2.33	0.43
53:CA:206:C:O5'	53:CA:206:C:H6	2.02	0.43
53:CA:301:G:H2'	53:CA:302:G:C8	2.53	0.43
53:CA:307:C:H5''	53:CA:308:C:OP2	2.18	0.43
53:CA:511:C:O2'	53:CA:512:U:C5'	2.62	0.43
53:CA:596:A:O2'	53:CA:597:G:C5'	2.66	0.43
53:CA:715:A:H8	53:CA:715:A:O5'	2.01	0.43
53:CA:1221:G:C2	53:CA:1222:G:H1'	2.53	0.43
53:CA:1499:A:P	62:CA:1870:HOH:O	2.76	0.43
3:CC:88:LYS:HD3	3:CC:88:LYS:O	2.17	0.43
4:CD:25:ARG:NH2	4:CD:30:LYS:HG2	2.32	0.43
8:CH:74:ILE:O	8:CH:74:ILE:CG2	2.65	0.43
10:CJ:52:LEU:CD2	10:CJ:62:ARG:CG	2.92	0.43
12:CL:98:ARG:HD3	12:CL:103:CYS:SG	2.58	0.43
19:CS:37:SER:O	19:CS:69:LYS:HA	2.18	0.43
21:CU:20:ARG:NH1	21:CU:24:LYS:HD3	2.33	0.43
22:DA:266:G:H2'	22:DA:267:C:O5'	2.17	0.43
22:DA:311:A:HO2'	22:DA:332:A:C4'	2.30	0.43
22:DA:447:A:C5'	22:DA:449:A:N7	2.75	0.43
22:DA:459:U:OP1	50:D2:39:ARG:HA	2.18	0.43
22:DA:503:A:N3	22:DA:505:A:H2'	2.33	0.43
22:DA:695:G:N2	22:DA:696:G:H1'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:715:A:N6	22:DA:716:A:C6	2.86	0.43
22:DA:763:G:C5	22:DA:765:C:C5	3.06	0.43
22:DA:804:A:C2'	22:DA:806:C:C4	3.00	0.43
22:DA:1195:G:O2'	22:DA:1226:A:N1	2.44	0.43
22:DA:1297:C:C2	22:DA:1298:C:C6	3.07	0.43
22:DA:1419:A:C4	22:DA:1579:A:C6	3.06	0.43
22:DA:1485:U:C2	22:DA:1505:A:C2	3.06	0.43
22:DA:1512:C:C4	22:DA:1513:U:C5	3.05	0.43
22:DA:1571:A:C8	22:DA:1571:A:H3'	2.52	0.43
22:DA:2009:A:N6	62:DA:3386:HOH:O	2.50	0.43
22:DA:2036:C:O2'	22:DA:2037:A:H8	2.01	0.43
22:DA:2064:C:H2'	22:DA:2065:C:H6	1.81	0.43
22:DA:2216:G:C4	22:DA:2217:G:N7	2.86	0.43
22:DA:2221:G:C2'	22:DA:2222:C:H5'	2.48	0.43
22:DA:2287:A:C5	22:DA:2289:G:C8	3.06	0.43
22:DA:2467:C:N4	22:DA:2468:A:N1	2.65	0.43
22:DA:2623:G:H21	48:D0:18:HIS:CE1	2.36	0.43
24:DC:28:PRO:HG3	24:DC:62:ARG:CZ	2.48	0.43
24:DC:212:TRP:C	24:DC:212:TRP:HD1	2.26	0.43
25:DD:98:VAL:C	25:DD:100:LEU:N	2.75	0.43
26:DE:109:LEU:O	26:DE:112:LEU:CB	2.65	0.43
26:DE:148:ILE:HA	26:DE:187:VAL:CB	2.43	0.43
58:DF:45:ASP:HB3	58:DF:48:LEU:CD2	2.48	0.43
28:DG:106:LEU:O	28:DG:108:PHE:CE1	2.71	0.43
30:DI:103:ALA:O	30:DI:107:GLU:HB2	2.18	0.43
31:DJ:36:LEU:HD12	31:DJ:121:LYS:HB2	1.99	0.43
32:DK:2:ILE:HG22	32:DK:3:GLN:O	2.18	0.43
32:DK:9:ASN:N	32:DK:9:ASN:HD22	2.15	0.43
32:DK:57:VAL:O	32:DK:57:VAL:HG22	2.18	0.43
32:DK:87:LEU:C	32:DK:89:ASN:H	2.25	0.43
34:DM:53:MET:HE1	34:DM:103:TYR:CD2	2.53	0.43
34:DM:76:LYS:HG2	34:DM:80:VAL:HG11	2.00	0.43
37:DP:19:PHE:CE1	37:DP:58:PHE:CE2	3.06	0.43
39:DR:86:GLN:HE21	39:DR:86:GLN:HB2	1.70	0.43
41:DT:58:VAL:HG22	41:DT:59:ASN:N	2.33	0.43
42:DU:8:ASP:OD1	42:DU:8:ASP:C	2.60	0.43
43:DV:4:ILE:HD12	43:DV:63:ILE:HG13	2.00	0.43
43:DV:50:MET:O	43:DV:53:LYS:HB2	2.18	0.43
50:D2:25:LYS:HA	50:D2:28:ARG:HE	1.83	0.43
52:D4:27:CYS:SG	52:D4:33:HIS:HB2	2.58	0.43
1:AA:255:G:H2'	1:AA:256:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:263:A:P	20:AT:73:ARG:NH1	2.91	0.43
1:AA:345:C:C4'	37:BP:33:GLU:CD	2.91	0.43
1:AA:913:A:HO2'	1:AA:914:A:P	2.41	0.43
1:AA:1016:A:H3'	1:AA:1017:U:O4'	2.18	0.43
1:AA:1239:A:C5	1:AA:1298:U:C5	3.06	0.43
1:AA:1258:G:O2'	1:AA:1259:C:O5'	2.35	0.43
2:AB:132:GLU:O	2:AB:136:ARG:CB	2.66	0.43
3:AC:119:ILE:CG2	3:AC:197:VAL:HG21	2.48	0.43
10:AJ:53:ILE:CD1	14:AN:84:ARG:CZ	2.96	0.43
12:AL:87:LYS:HB2	12:AL:87:LYS:NZ	2.33	0.43
13:AM:86:ARG:NH2	13:AM:96:VAL:HG12	2.32	0.43
14:AN:32:ASP:O	14:AN:33:VAL:C	2.61	0.43
16:AP:2:VAL:HG23	16:AP:65:ALA:HB2	1.95	0.43
16:AP:80:LYS:HB2	16:AP:80:LYS:HZ3	1.83	0.43
19:AS:62:THR:HG22	19:AS:64:GLU:OE1	2.19	0.43
22:BA:45:G:H5''	22:BA:46:G:OP1	2.18	0.43
22:BA:686:U:H2'	22:BA:788:A:N1	2.33	0.43
22:BA:825:A:C2'	22:BA:826:U:O5'	2.66	0.43
22:BA:902:C:H6	22:BA:902:C:O5'	2.01	0.43
22:BA:1173:U:O2	22:BA:1173:U:H2'	2.18	0.43
22:BA:1204:A:H4'	22:BA:1205:A:O5'	2.18	0.43
22:BA:1549:A:C6	22:BA:1550:C:C4	3.05	0.43
22:BA:1599:U:P	41:BT:40:LYS:HD2	2.58	0.43
22:BA:1668:A:C4	22:BA:1674:G:C8	3.06	0.43
22:BA:1713:A:C2	22:BA:1716:U:C6	3.06	0.43
22:BA:2273:A:H2'	22:BA:2274:A:C8	2.52	0.43
22:BA:2870:C:C2'	22:BA:2871:U:H5'	2.48	0.43
23:BB:52:A:C4'	23:BB:53:A:OP1	2.57	0.43
23:BB:94:A:C5	23:BB:95:U:C4	3.05	0.43
25:BD:122:VAL:HG12	25:BD:123:LYS:N	2.31	0.43
26:BE:119:ILE:HD11	26:BE:187:VAL:HG23	1.92	0.43
27:BF:8:LYS:HB2	27:BF:9:ASP:H	1.60	0.43
27:BF:120:SER:O	27:BF:127:TYR:HD1	2.01	0.43
33:BL:120:VAL:HG12	33:BL:121:THR:N	2.33	0.43
37:BP:91:VAL:HG11	37:BP:96:LEU:HD21	2.00	0.43
43:BV:80:HIS:CG	43:BV:81:PRO:HD2	2.49	0.43
53:CA:223:A:C4	53:CA:224:U:C5	3.06	0.43
53:CA:257:G:C2	53:CA:270:A:C6	3.06	0.43
53:CA:405:U:O4	4:CD:1:ALA:HA	2.18	0.43
53:CA:754:C:C3'	53:CA:755:G:H5'	2.48	0.43
53:CA:821:G:O2'	53:CA:822:U:O4'	2.26	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:861:G:C4	53:CA:862:C:C5	3.05	0.43
53:CA:958:A:N6	19:CS:54:ARG:NH1	2.65	0.43
53:CA:1084:G:C6	53:CA:1085:U:O4	2.71	0.43
2:CB:100:LEU:C	2:CB:102:ASN:H	2.25	0.43
2:CB:122:ASP:C	2:CB:124:THR:H	2.26	0.43
4:CD:202:LEU:O	4:CD:202:LEU:HD23	2.19	0.43
5:CE:37:VAL:HA	5:CE:47:PHE:HA	1.99	0.43
6:CF:52:ASN:C	6:CF:54:LEU:H	2.26	0.43
9:CI:59:LYS:HE2	9:CI:59:LYS:HB3	1.74	0.43
12:CL:75:GLU:O	12:CL:77:SER:N	2.51	0.43
14:CN:81:ILE:HD12	14:CN:82:LYS:N	2.33	0.43
17:CQ:12:VAL:O	17:CQ:12:VAL:CG2	2.66	0.43
17:CQ:47:ASP:OD1	17:CQ:74:LEU:HD23	2.18	0.43
18:CR:22:TYR:HE1	18:CR:64:LEU:HD12	1.83	0.43
22:DA:78:U:O2'	22:DA:79:C:C5'	2.59	0.43
22:DA:301:G:C4	22:DA:302:C:C4	3.06	0.43
22:DA:382:A:H2'	22:DA:383:C:C4'	2.47	0.43
22:DA:447:A:OP2	22:DA:447:A:H2'	2.17	0.43
22:DA:498:G:C6	22:DA:499:U:C4	3.05	0.43
22:DA:563:A:C6	22:DA:2018:G:C4	3.07	0.43
22:DA:728:G:N3	22:DA:730:A:C8	2.85	0.43
22:DA:931:U:O2	22:DA:931:U:C2'	2.65	0.43
22:DA:1063:G:O2'	22:DA:1064:C:H6	1.91	0.43
22:DA:1076:C:O2	30:DI:92:PRO:CG	2.59	0.43
22:DA:1201:U:H2'	22:DA:1202:G:H8	1.82	0.43
22:DA:1300:G:H5''	22:DA:1301:A:H5'	2.00	0.43
22:DA:1398:C:O2'	22:DA:1399:C:O4'	2.36	0.43
22:DA:1563:U:H2'	22:DA:1564:C:C6	2.52	0.43
22:DA:1587:G:N3	22:DA:1587:G:H2'	2.32	0.43
22:DA:1675:C:N3	25:DD:133:THR:HG21	2.33	0.43
22:DA:1870:C:C5'	22:DA:1871:A:H2	2.16	0.43
22:DA:1999:C:H5''	22:DA:2723:C:O2'	2.17	0.43
22:DA:2076:U:H5''	22:DA:2238:G:H22	1.82	0.43
22:DA:2197:U:O2'	22:DA:2198:A:C8	2.70	0.43
22:DA:2201:G:C5	22:DA:2223:G:C2	3.06	0.43
22:DA:2314:A:O2'	22:DA:2315:G:O4'	2.36	0.43
22:DA:2386:A:O2'	22:DA:2387:U:C6	2.67	0.43
22:DA:2683:C:H2'	22:DA:2684:U:H6	1.84	0.43
22:DA:2723:C:C5	22:DA:2724:U:C5	3.06	0.43
22:DA:2728:U:HO2'	22:DA:2729:G:H8	1.49	0.43
57:DB:66:A:N1	57:DB:107:G:H2'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
57:DB:88:C:O2'	57:DB:89:U:OP2	2.29	0.43
24:DC:53:ILE:HA	24:DC:214:GLY:O	2.17	0.43
24:DC:128:THR:HG22	24:DC:188:ARG:CB	2.44	0.43
58:DF:37:MET:CA	58:DF:151:LEU:HB3	2.48	0.43
58:DF:111:ARG:NH1	58:DF:113:PHE:CE1	2.85	0.43
31:DJ:89:PHE:O	31:DJ:92:MET:N	2.52	0.43
32:DK:17:ARG:O	32:DK:18:ARG:C	2.60	0.43
33:DL:89:VAL:HG23	33:DL:121:THR:HG23	2.00	0.43
34:DM:33:LEU:CD2	34:DM:128:THR:CB	2.94	0.43
35:DN:65:LEU:HD12	35:DN:65:LEU:N	2.32	0.43
35:DN:87:PHE:CD1	35:DN:90:ARG:CD	3.00	0.43
36:DO:7:ARG:NE	36:DO:97:PHE:CZ	2.86	0.43
36:DO:34:HIS:O	36:DO:35:ILE:HG12	2.18	0.43
37:DP:32:VAL:HG22	37:DP:32:VAL:O	2.17	0.43
39:DR:9:GLY:H	39:DR:10:LYS:HD2	1.82	0.43
39:DR:25:LEU:H	39:DR:94:THR:HG21	1.83	0.43
41:DT:15:HIS:HD2	41:DT:17:SER:HB2	1.83	0.43
41:DT:19:LYS:O	41:DT:20:ALA:HB2	2.18	0.43
46:DY:47:ARG:O	46:DY:48:ARG:C	2.60	0.43
50:D2:30:VAL:HG22	50:D2:33:ARG:HH22	1.83	0.43
52:D4:15:LYS:HA	52:D4:15:LYS:HE3	2.00	0.43
1:AA:307:C:H5'	1:AA:308:C:OP2	2.18	0.43
1:AA:344:A:O2'	37:BP:36:LYS:HE2	2.18	0.43
1:AA:502:A:H2'	1:AA:503:C:H6	1.80	0.43
1:AA:1325:C:O2'	1:AA:1326:U:H5'	2.18	0.43
3:AC:17:TRP:HD1	14:AN:90:GLY:HA2	1.79	0.43
4:AD:185:PRO:HB2	4:AD:190:LEU:HD23	1.99	0.43
6:AF:98:GLU:HG3	6:AF:99:ALA:N	2.33	0.43
8:AH:45:ILE:HG22	8:AH:62:LEU:HD13	1.98	0.43
9:AI:40:ARG:C	9:AI:44:ARG:HB3	2.43	0.43
11:AK:121:ARG:NH2	21:AU:35:GLU:HG3	2.34	0.43
13:AM:2:ARG:O	13:AM:3:ILE:CG1	2.50	0.43
13:AM:82:LEU:N	13:AM:82:LEU:HD23	2.33	0.43
14:AN:15:LEU:C	14:AN:17:ASP:N	2.76	0.43
15:AO:8:ALA:O	15:AO:9:LYS:C	2.61	0.43
21:AU:7:GLU:HB2	21:AU:11:PHE:CZ	2.53	0.43
21:AU:16:ARG:HG2	21:AU:19:LYS:HG2	2.01	0.43
22:BA:12:U:H2'	22:BA:12:U:O2	2.19	0.43
22:BA:277:G:H4'	22:BA:278:A:C8	2.52	0.43
22:BA:649:G:H2'	22:BA:650:C:C6	2.53	0.43
22:BA:783:A:H8	22:BA:784:G:H4'	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1024:G:N2	22:BA:1142:A:H2	2.16	0.43
22:BA:1257:C:H5'	26:BE:78:TRP:CE3	2.53	0.43
22:BA:1352:U:H2'	22:BA:1353:A:H5'	2.00	0.43
22:BA:1510:G:C4	22:BA:1511:G:C8	3.06	0.43
22:BA:1799:G:N7	24:BC:177:SER:HB3	2.34	0.43
22:BA:1833:C:H2'	22:BA:1834:U:C6	2.39	0.43
22:BA:1858:A:C5	22:BA:1885:A:C8	3.06	0.43
22:BA:1978:A:C5	22:BA:1979:U:C5	3.06	0.43
22:BA:1984:G:C2	22:BA:1985:C:C6	3.06	0.43
22:BA:2452:C:C4	22:BA:2453:A:C6	3.07	0.43
25:BD:101:PHE:CE2	25:BD:203:VAL:HG22	2.36	0.43
26:BE:101:TYR:CE2	26:BE:105:LEU:HD12	2.53	0.43
35:BN:33:ILE:CG1	35:BN:118:ARG:CZ	2.96	0.43
38:BQ:73:ILE:HG23	38:BQ:73:ILE:O	2.16	0.43
38:BQ:88:GLU:OE1	38:BQ:88:GLU:CA	2.67	0.43
41:BT:7:LEU:C	41:BT:8:LEU:HD23	2.43	0.43
42:BU:85:ARG:HG3	42:BU:86:PHE:N	2.31	0.43
43:BV:30:ILE:HD11	43:BV:63:ILE:HD13	1.99	0.43
44:BW:72:GLY:H	44:BW:73:PRO:HD2	1.82	0.43
44:BW:80:SER:O	44:BW:81:ILE:HG13	2.18	0.43
46:BY:21:LEU:O	46:BY:22:LEU:C	2.60	0.43
47:BZ:2:LYS:O	47:BZ:3:THR:O	2.36	0.43
49:B1:15:GLY:O	49:B1:16:THR:C	2.60	0.43
52:B4:4:ARG:HG3	52:B4:6:SER:O	2.18	0.43
53:CA:18:C:C2	53:CA:19:A:C8	3.06	0.43
53:CA:611:C:H2'	53:CA:612:C:H6	1.82	0.43
53:CA:623:C:H6	53:CA:623:C:O5'	2.02	0.43
53:CA:715:A:O2'	53:CA:716:A:H5'	2.18	0.43
53:CA:973:G:H2'	53:CA:974:A:H5'	2.01	0.43
53:CA:1357:A:N7	53:CA:1358:U:C5	2.86	0.43
2:CB:115:ASP:O	2:CB:119:GLN:HB2	2.18	0.43
3:CC:133:MET:HB2	3:CC:150:VAL:CG2	2.47	0.43
3:CC:152:VAL:CG2	3:CC:156:LEU:CD2	2.96	0.43
4:CD:71:PHE:O	4:CD:72:ARG:C	2.62	0.43
6:CF:96:VAL:HG12	6:CF:97:THR:N	2.33	0.43
54:CG:4:ARG:HD2	54:CG:5:VAL:N	2.26	0.43
9:CI:27:ILE:HG21	9:CI:34:LEU:HA	2.00	0.43
55:CM:21:ILE:HD12	55:CM:24:VAL:HG21	2.00	0.43
55:CM:108:ARG:C	55:CM:110:GLY:H	2.26	0.43
15:CO:38:LEU:HD12	15:CO:41:HIS:HB3	2.00	0.43
17:CQ:24:ILE:HD12	17:CQ:24:ILE:N	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:39:VAL:HG13	18:CR:40:PRO:HD2	1.98	0.43
18:CR:61:ALA:HB1	18:CR:66:LEU:HB2	2.00	0.43
22:DA:137:U:O5'	22:DA:137:U:H6	2.01	0.43
22:DA:283:G:N2	22:DA:358:U:C2	2.87	0.43
22:DA:289:G:H2'	22:DA:290:U:O4'	2.19	0.43
22:DA:379:G:N1	22:DA:380:G:C4	2.86	0.43
22:DA:492:A:O2'	22:DA:493:G:O4'	2.31	0.43
22:DA:532:A:N1	22:DA:2020:A:O2'	2.38	0.43
22:DA:576:U:O2'	22:DA:577:G:H5'	2.17	0.43
22:DA:752:A:C6	22:DA:1781:U:C1'	2.99	0.43
22:DA:763:G:N9	22:DA:765:C:C6	2.86	0.43
22:DA:858:G:C6	22:DA:2268:A:C6	3.07	0.43
22:DA:995:C:O2'	38:DQ:60:TRP:CH2	2.66	0.43
22:DA:1238:G:H2'	22:DA:1239:G:C8	2.53	0.43
22:DA:1686:C:C2	22:DA:1703:G:C2	3.06	0.43
22:DA:1757:A:N1	22:DA:1762:A:C2	2.86	0.43
22:DA:1819:A:H4'	22:DA:1820:U:H5'	2.00	0.43
22:DA:2060:A:O2'	62:DA:3514:HOH:O	2.21	0.43
22:DA:2331:G:C6	22:DA:2385:C:N4	2.86	0.43
22:DA:2463:C:O5'	22:DA:2463:C:H6	2.01	0.43
22:DA:2567:G:H2'	22:DA:2568:U:C5	2.53	0.43
22:DA:2646:C:C6	22:DA:2646:C:C4'	3.01	0.43
22:DA:2722:G:H4'	35:DN:3:HIS:O	2.18	0.43
22:DA:2746:U:C5'	28:DG:137:LYS:HG2	2.48	0.43
22:DA:2794:C:H2'	22:DA:2795:C:O4'	2.19	0.43
57:DB:19:C:H2'	57:DB:20:G:H8	1.83	0.43
57:DB:34:A:C6	57:DB:44:G:C8	3.05	0.43
57:DB:109:A:C4	57:DB:110:C:C5	3.06	0.43
25:DD:109:VAL:HG21	25:DD:175:LEU:CD1	2.48	0.43
25:DD:111:GLY:HA3	25:DD:194:PRO:HG2	2.00	0.43
58:DF:113:PHE:CE2	58:DF:116:LEU:HB2	2.53	0.43
29:DH:12:LEU:HD12	29:DH:12:LEU:C	2.43	0.43
29:DH:41:LYS:O	29:DH:44:ILE:HG12	2.18	0.43
30:DI:48:ILE:HG13	30:DI:49:GLU:HG2	2.00	0.43
32:DK:14:SER:HG	32:DK:51:LYS:H	1.64	0.43
32:DK:20:MET:HE2	32:DK:44:LYS:CE	2.48	0.43
32:DK:62:VAL:HG12	32:DK:63:VAL:N	2.34	0.43
33:DL:108:ALA:CB	33:DL:125:LEU:HD22	2.47	0.43
33:DL:135:ILE:HG23	33:DL:136:GLU:N	2.33	0.43
34:DM:72:PRO:HA	34:DM:92:TRP:CE3	2.54	0.43
38:DQ:82:LEU:O	38:DQ:85:ALA:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:91:ARG:NH1	39:DR:10:LYS:CB	2.69	0.43
41:DT:5:GLU:HA	41:DT:8:LEU:HB2	1.99	0.43
43:DV:26:PHE:HA	43:DV:27:PRO:HD2	1.84	0.43
44:DW:49:ASN:ND2	44:DW:80:SER:C	2.76	0.43
44:DW:66:VAL:HG13	44:DW:80:SER:O	2.19	0.43
1:AA:68:G:C6	1:AA:69:G:H1'	2.52	0.43
1:AA:184:G:C2'	1:AA:185:U:C6	3.01	0.43
1:AA:334:C:C2'	1:AA:335:C:H5'	2.48	0.43
1:AA:373:A:O2'	1:AA:374:A:C5'	2.66	0.43
1:AA:376:G:H5''	16:AP:5:ARG:HB2	2.00	0.43
1:AA:501:C:O3'	12:AL:114:SER:HB2	2.18	0.43
1:AA:502:A:H2'	1:AA:503:C:O4'	2.19	0.43
1:AA:609:A:H2'	1:AA:610:U:H5'	1.99	0.43
1:AA:640:A:C2'	1:AA:641:U:H5'	2.48	0.43
1:AA:821:G:H4'	62:AA:1741:HOH:O	2.16	0.43
1:AA:953:G:C2'	1:AA:954:G:H5'	2.48	0.43
1:AA:1004:A:C2	1:AA:1005:A:H1'	2.53	0.43
1:AA:1135:U:H2'	1:AA:1135:U:O2	2.18	0.43
1:AA:1311:A:C2	1:AA:1327:C:N3	2.86	0.43
2:AB:56:LEU:O	2:AB:59:ILE:HG13	2.18	0.43
6:AF:85:ILE:H	6:AF:85:ILE:HG12	1.68	0.43
9:AI:90:ASP:OD2	9:AI:92:SER:HB3	2.18	0.43
10:AJ:92:LEU:HD23	10:AJ:92:LEU:N	2.33	0.43
12:AL:79:ILE:HD12	12:AL:96:THR:HG21	1.99	0.43
14:AN:29:ILE:HG23	14:AN:34:ASN:ND2	2.33	0.43
21:AU:20:ARG:HH12	21:AU:24:LYS:HD2	1.84	0.43
22:BA:154:U:H2'	22:BA:155:A:C8	2.54	0.43
22:BA:312:G:H2'	22:BA:313:G:H8	1.82	0.43
22:BA:341:C:C2	22:BA:342:A:C8	3.07	0.43
22:BA:633:A:H8	22:BA:633:A:O5'	2.00	0.43
22:BA:1059:G:OP2	22:BA:1061:U:P	2.76	0.43
22:BA:1061:U:H1'	22:BA:1070:A:O4'	2.18	0.43
22:BA:1202:G:C6	22:BA:1203:U:N3	2.86	0.43
22:BA:1241:A:C8	22:BA:1242:U:C5	3.06	0.43
22:BA:1259:G:H2'	22:BA:1260:A:C8	2.53	0.43
22:BA:1413:A:H2'	22:BA:1414:C:O4'	2.18	0.43
22:BA:1688:U:H1'	22:BA:1701:A:C5	2.53	0.43
22:BA:1861:G:N2	22:BA:1882:U:H1'	2.33	0.43
22:BA:1875:G:H2'	22:BA:1876:A:OP2	2.19	0.43
22:BA:1984:G:C6	22:BA:1985:C:C5	3.07	0.43
22:BA:2013:A:N3	40:BS:88:ARG:NH1	2.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2478:A:OP1	52:B4:32:LYS:HD3	2.18	0.43
22:BA:2850:A:N7	22:BA:2868:A:O2'	2.36	0.43
24:BC:18:VAL:O	24:BC:18:VAL:CG1	2.60	0.43
24:BC:83:ASP:HA	24:BC:84:PRO:HD3	1.85	0.43
24:BC:203:VAL:CG1	24:BC:204:LEU:N	2.80	0.43
27:BF:100:GLU:C	27:BF:102:LEU:N	2.73	0.43
27:BF:128:SER:OG	27:BF:154:THR:HB	2.18	0.43
27:BF:142:TYR:HA	27:BF:145:VAL:HG13	2.01	0.43
28:BG:120:ILE:CD1	28:BG:121:THR:N	2.66	0.43
31:BJ:4:PHE:O	31:BJ:4:PHE:CD1	2.71	0.43
32:BK:10:VAL:HG11	32:BK:16:ALA:HB2	1.99	0.43
36:BO:49:VAL:CG1	36:BO:50:ALA:N	2.81	0.43
38:BQ:23:TYR:O	38:BQ:28:SER:HB3	2.19	0.43
41:BT:54:GLU:HB3	41:BT:88:LYS:CG	2.48	0.43
43:BV:4:ILE:HG12	43:BV:50:MET:SD	2.58	0.43
43:BV:80:HIS:CD2	43:BV:82:TYR:H	2.36	0.43
45:BX:63:ILE:H	45:BX:63:ILE:HG13	1.42	0.43
47:BZ:40:THR:C	47:BZ:42:ALA:N	2.74	0.43
53:CA:61:G:C6	53:CA:107:G:C2	3.07	0.43
53:CA:76:G:H8	53:CA:76:G:OP2	2.02	0.43
53:CA:83:C:C4	53:CA:85:U:N3	2.86	0.43
53:CA:131:A:N6	53:CA:232:G:O6	2.51	0.43
53:CA:319:G:H4'	53:CA:1468:A:C4'	2.48	0.43
53:CA:564:C:H5'	53:CA:564:C:C6	2.41	0.43
53:CA:701:U:O2'	53:CA:702:A:OP2	2.33	0.43
53:CA:1078:U:O4'	5:CE:88:HIS:HE1	2.01	0.43
53:CA:1245:C:H2'	53:CA:1246:A:C8	2.46	0.43
53:CA:1281:C:C3'	53:CA:1282:C:C5'	2.94	0.43
53:CA:1411:C:OP2	53:CA:1411:C:H6	2.00	0.43
53:CA:1437:A:H2'	53:CA:1438:G:H8	1.82	0.43
53:CA:1461:G:C6	53:CA:1462:C:C4	3.07	0.43
2:CB:103:TRP:HD1	2:CB:107:ARG:HB3	1.80	0.43
4:CD:77:GLU:O	4:CD:78:ALA:C	2.61	0.43
5:CE:131:ASN:HA	5:CE:132:PRO:HD2	1.79	0.43
9:CI:44:ARG:HH21	9:CI:48:ARG:NH1	2.16	0.43
10:CJ:45:ARG:HB2	10:CJ:69:THR:HB	1.99	0.43
12:CL:75:GLU:C	12:CL:77:SER:N	2.73	0.43
22:DA:68:G:N2	22:DA:74:A:OP2	2.51	0.43
22:DA:81:G:H2'	22:DA:82:U:O4'	2.18	0.43
22:DA:226:A:H2'	22:DA:227:A:H8	1.81	0.43
22:DA:404:A:H1'	22:DA:406:G:C5	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:453:A:H4'	22:DA:472:A:N6	2.32	0.43
22:DA:475:C:C6	22:DA:476:G:N7	2.87	0.43
22:DA:529:A:C4	22:DA:2023:C:C5	3.06	0.43
22:DA:679:C:H2'	22:DA:680:C:C6	2.52	0.43
22:DA:763:G:H8	22:DA:763:G:H2'	1.49	0.43
22:DA:972:A:C2	22:DA:973:A:N6	2.86	0.43
22:DA:992:C:O2'	22:DA:993:G:C5'	2.66	0.43
22:DA:1015:U:H2'	22:DA:1016:G:O4'	2.18	0.43
22:DA:1057:A:C6	22:DA:1058:U:C4	3.06	0.43
22:DA:1057:A:N3	22:DA:1082:U:C2	2.86	0.43
22:DA:1211:C:H4'	22:DA:1212:G:OP2	2.17	0.43
22:DA:1361:G:C2'	22:DA:1362:C:C5'	2.96	0.43
22:DA:1387:A:N6	22:DA:1401:G:N1	2.67	0.43
22:DA:1527:G:N2	22:DA:1546:G:C6	2.87	0.43
22:DA:1585:C:C2'	22:DA:1586:A:O5'	2.66	0.43
22:DA:1596:A:N6	22:DA:1597:A:N6	2.66	0.43
22:DA:1654:A:O2'	22:DA:1655:A:O5'	2.36	0.43
22:DA:1996:C:H5	32:DK:32:TYR:OH	2.00	0.43
22:DA:2032:G:H1'	25:DD:150:GLN:OE1	2.19	0.43
22:DA:2093:G:O6	22:DA:2225:A:H8	1.85	0.43
22:DA:2303:G:O6	22:DA:2314:A:N6	2.51	0.43
22:DA:2314:A:HO2'	22:DA:2315:G:H8	1.63	0.43
22:DA:2319:G:O2'	22:DA:2320:U:O5'	2.37	0.43
22:DA:2370:G:C6	22:DA:2371:G:C6	3.06	0.43
22:DA:2474:U:O2	22:DA:2474:U:O4'	2.36	0.43
22:DA:2575:C:C4'	25:DD:148:GLN:O	2.67	0.43
22:DA:2600:A:C6	22:DA:2601:C:N4	2.87	0.43
22:DA:2682:A:O2'	22:DA:2683:C:O5'	2.37	0.43
22:DA:2846:G:P	37:DP:51:ASN:CB	3.07	0.43
57:DB:30:C:H1'	57:DB:58:A:N1	2.34	0.43
57:DB:96:G:C2'	57:DB:97:C:H5'	2.49	0.43
24:DC:145:MET:HB2	24:DC:152:GLN:HE22	1.83	0.43
25:DD:175:LEU:HD23	25:DD:190:LYS:O	2.18	0.43
26:DE:48:THR:C	26:DE:50:ALA:H	2.26	0.43
58:DF:12:VAL:CG1	58:DF:16:MET:HG3	2.43	0.43
37:DP:16:VAL:HG13	37:DP:19:PHE:CE2	2.53	0.43
38:DQ:92:LYS:O	38:DQ:95:ALA:HB3	2.17	0.43
39:DR:27:ILE:HG13	39:DR:33:VAL:CG1	2.45	0.43
40:DS:20:VAL:HA	40:DS:23:LEU:HB2	2.00	0.43
44:DW:17:ALA:HB1	44:DW:36:ILE:HG12	2.00	0.43
44:DW:37:VAL:HA	44:DW:55:ASP:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:109:A:C2	1:AA:327:A:N1	2.86	0.43
1:AA:110:C:O2'	1:AA:111:G:C5'	2.66	0.43
1:AA:142:G:N3	1:AA:142:G:H2'	2.33	0.43
1:AA:208:U:H5	1:AA:210:C:C5	2.36	0.43
1:AA:628:G:N2	1:AA:629:A:N3	2.66	0.43
1:AA:637:C:H2'	1:AA:638:U:O4'	2.17	0.43
1:AA:642:A:C4	8:AH:105:THR:O	2.71	0.43
1:AA:909:A:C8	1:AA:910:C:C5	3.07	0.43
1:AA:1060:U:H2'	1:AA:1061:G:H8	1.83	0.43
1:AA:1112:C:N4	3:AC:177:LEU:CD2	2.81	0.43
1:AA:1157:A:C6	1:AA:1180:A:C6	3.07	0.43
1:AA:1202:U:O4'	14:AN:68:ARG:HD2	2.19	0.43
1:AA:1452:C:H4'	1:AA:1453:G:N3	2.34	0.43
2:AB:186:VAL:N	2:AB:199:ILE:O	2.51	0.43
3:AC:79:LYS:HE3	3:AC:79:LYS:HA	2.00	0.43
4:AD:3:TYR:CZ	4:AD:5:GLY:HA3	2.53	0.43
7:AG:14:ASP:HB3	7:AG:18:GLY:H	1.83	0.43
11:AK:82:GLU:CD	11:AK:82:GLU:N	2.77	0.43
16:AP:15:PRO:HG2	16:AP:41:PRO:HG3	1.99	0.43
17:AQ:50:ASN:OD1	17:AQ:50:ASN:N	2.50	0.43
17:AQ:51:GLU:CD	17:AQ:51:GLU:H	2.27	0.43
21:AU:16:ARG:C	21:AU:18:PHE:H	2.26	0.43
22:BA:303:G:C6	22:BA:315:G:C6	3.06	0.43
22:BA:377:G:C2'	22:BA:378:C:H5'	2.49	0.43
22:BA:412:A:C2'	22:BA:413:C:C5'	2.96	0.43
22:BA:575:A:OP2	22:BA:2055:C:H5	2.02	0.43
22:BA:610:C:O2'	22:BA:611:C:H5'	2.19	0.43
22:BA:826:U:O2'	33:BL:53:GLY:CA	2.55	0.43
22:BA:866:A:C8	22:BA:914:G:N1	2.86	0.43
22:BA:1090:A:C2	22:BA:1091:G:C8	3.06	0.43
22:BA:1141:U:H4'	22:BA:1142:A:O4'	2.18	0.43
22:BA:1190:G:OP1	33:BL:32:GLY:CA	2.63	0.43
22:BA:1348:C:H2'	22:BA:1349:C:H5'	1.99	0.43
22:BA:1467:U:C4	22:BA:1546:G:C2	3.06	0.43
22:BA:1655:A:H2'	22:BA:1656:C:O4'	2.19	0.43
22:BA:1724:G:C6	22:BA:1725:U:C4	3.07	0.43
22:BA:1803:A:H2	22:BA:1822:C:O2	2.00	0.43
22:BA:1839:G:C6	22:BA:1927:A:C5	3.07	0.43
22:BA:1911:U:C2	22:BA:1918:A:C2	3.06	0.43
22:BA:2019:A:H2	22:BA:2035:G:H22	1.66	0.43
22:BA:2286:G:H5''	22:BA:2287:A:O5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2310:C:C5	27:BF:76:PHE:CZ	3.06	0.43
22:BA:2573:C:H5'	22:BA:2573:C:H6	1.84	0.43
23:BB:32:U:O2'	23:BB:33:G:H5'	2.18	0.43
23:BB:75:G:H2'	23:BB:76:G:O4'	2.18	0.43
28:BG:31:GLU:C	28:BG:32:LEU:HD12	2.43	0.43
29:BH:143:ILE:C	29:BH:143:ILE:HD12	2.43	0.43
30:BI:79:LEU:HD21	30:BI:132:ALA:HB1	2.00	0.43
33:BL:8:PRO:O	33:BL:9:ALA:C	2.60	0.43
33:BL:95:LEU:HB3	33:BL:100:ILE:HD11	2.00	0.43
34:BM:97:GLN:HB2	34:BM:98:PRO:CD	2.48	0.43
34:BM:132:THR:CG2	34:BM:133:LYS:H	2.31	0.43
34:BM:134:THR:O	34:BM:134:THR:HG22	2.18	0.43
37:BP:30:TRP:CE3	37:BP:39:LEU:CD1	3.02	0.43
37:BP:112:ARG:O	37:BP:113:LEU:C	2.61	0.43
38:BQ:34:ALA:O	38:BQ:38:VAL:HG23	2.18	0.43
50:B2:38:GLY:O	50:B2:39:ARG:C	2.61	0.43
51:B3:22:LYS:HA	51:B3:47:ALA:C	2.42	0.43
53:CA:117:G:C2'	53:CA:118:U:C5'	2.95	0.43
53:CA:774:G:C5	53:CA:775:G:C8	3.07	0.43
53:CA:866:C:C4	53:CA:867:G:HI'	2.53	0.43
53:CA:994:A:C5	53:CA:1216:A:C4'	3.01	0.43
53:CA:1069:C:H4'	53:CA:1192:C:O2	2.18	0.43
53:CA:1071:C:H2'	53:CA:1072:G:H8	1.84	0.43
53:CA:1113:C:H2'	53:CA:1114:C:C6	2.50	0.43
53:CA:1158:C:O2	53:CA:1158:C:C2'	2.66	0.43
53:CA:1252:A:H4'	53:CA:1369:C:H4'	2.01	0.43
53:CA:1268:G:H21	53:CA:1327:C:C1'	2.19	0.43
2:CB:102:ASN:O	2:CB:102:ASN:CG	2.62	0.43
3:CC:28:PHE:CZ	14:CN:93:PRO:HD2	2.53	0.43
4:CD:50:TYR:O	4:CD:51:GLY:C	2.61	0.43
4:CD:104:MET:SD	4:CD:142:VAL:CG1	3.06	0.43
4:CD:198:LEU:HD23	4:CD:198:LEU:HA	1.86	0.43
5:CE:25:LYS:HB2	5:CE:25:LYS:NZ	2.33	0.43
9:CI:30:ASN:O	9:CI:31:GLN:CG	2.66	0.43
9:CI:112:ARG:O	9:CI:112:ARG:HG3	2.18	0.43
11:CK:35:ASP:C	11:CK:37:GLN:N	2.76	0.43
55:CM:11:HIS:O	55:CM:12:LYS:HG2	2.18	0.43
55:CM:57:ASP:C	55:CM:59:VAL:H	2.27	0.43
55:CM:86:ARG:HH11	55:CM:90:HIS:HD2	1.66	0.43
56:CP:32:PHE:C	56:CP:32:PHE:HD1	2.26	0.43
18:CR:55:ALA:O	18:CR:56:ARG:C	2.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:CU:3:ILE:O	21:CU:4:LYS:O	2.36	0.43
21:CU:9:GLU:CB	21:CU:10:PRO:CD	2.96	0.43
21:CU:32:ARG:C	21:CU:32:ARG:HD3	2.44	0.43
22:DA:3:U:H2'	22:DA:4:U:C6	2.53	0.43
22:DA:38:A:C2	22:DA:442:G:C2	3.06	0.43
22:DA:91:A:O2'	22:DA:92:U:H6	2.02	0.43
22:DA:152:A:O2'	22:DA:153:U:H5'	2.18	0.43
22:DA:204:A:C4	22:DA:206:U:C4	3.06	0.43
22:DA:362:A:C5	22:DA:363:G:C8	3.06	0.43
22:DA:457:A:C2	22:DA:459:U:O4	2.71	0.43
22:DA:579:G:C8	22:DA:2017:U:O4	2.71	0.43
22:DA:593:U:C2	22:DA:594:U:C5	3.06	0.43
22:DA:651:G:C6	22:DA:652:U:C4	3.07	0.43
22:DA:807:U:H4'	22:DA:2445:G:O3'	2.18	0.43
22:DA:851:C:C4	22:DA:852:U:O4	2.72	0.43
22:DA:996:A:C5	22:DA:1160:G:N2	2.87	0.43
22:DA:1152:C:H5''	38:DQ:79:ILE:HD12	2.00	0.43
22:DA:1275:A:C4	35:DN:16:HIS:HD2	2.35	0.43
22:DA:1286:A:C5	22:DA:1289:C:N3	2.87	0.43
22:DA:1331:G:N3	22:DA:1333:G:C8	2.87	0.43
22:DA:1561:C:O2'	22:DA:1562:U:H5'	2.18	0.43
22:DA:1819:A:H1'	22:DA:1821:A:N6	2.33	0.43
22:DA:1833:C:C4	22:DA:1834:U:C4	3.06	0.43
22:DA:2024:G:C5	22:DA:2040:G:C2	3.06	0.43
22:DA:2053:G:H2'	22:DA:2054:A:C5'	2.49	0.43
22:DA:2283:C:O2'	22:DA:2284:A:C5'	2.50	0.43
22:DA:2345:G:C5	22:DA:2347:C:C5	3.06	0.43
22:DA:2466:C:OP1	52:D4:4:ARG:HD2	2.18	0.43
22:DA:2553:G:N1	22:DA:2554:U:O2	2.51	0.43
22:DA:2635:A:C5'	25:DD:79:LEU:HB2	2.47	0.43
22:DA:2729:G:C4'	25:DD:191:GLY:HA2	2.48	0.43
24:DC:79:ARG:HG2	24:DC:92:LEU:HB2	2.00	0.43
24:DC:166:ARG:HA	24:DC:171:VAL:HA	2.00	0.43
25:DD:114:LYS:HD2	25:DD:116:LYS:CE	2.47	0.43
26:DE:5:LEU:HA	26:DE:120:VAL:O	2.19	0.43
58:DF:11:VAL:CG1	58:DF:12:VAL:N	2.80	0.43
58:DF:94:ARG:HA	58:DF:97:GLU:OE2	2.19	0.43
58:DF:100:GLU:HG2	58:DF:100:GLU:O	2.18	0.43
30:DI:102:ARG:HD3	30:DI:140:GLU:O	2.19	0.43
32:DK:27:GLY:CA	32:DK:30:ARG:HD3	2.46	0.43
35:DN:31:HIS:O	35:DN:33:ILE:N	2.43	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:69:ARG:HB2	38:DQ:69:ARG:NH2	2.33	0.43
41:DT:11:LEU:HD12	41:DT:11:LEU:N	2.33	0.43
43:DV:29:ILE:HG22	43:DV:39:ALA:HA	1.99	0.43
43:DV:51:GLN:HE21	43:DV:51:GLN:HB2	1.59	0.43
45:DX:26:ARG:NH1	45:DX:28:PHE:CD2	2.86	0.43
46:DY:33:ALA:C	46:DY:35:GLY:H	2.26	0.43
49:D1:13:SER:HG	49:D1:46:VAL:HG22	1.83	0.43
51:D3:32:LEU:HD23	51:D3:35:LYS:HG3	2.00	0.43
51:D3:33:THR:CG2	51:D3:34:LYS:N	2.81	0.43
1:AA:974:A:P	14:AN:68:ARG:HH22	2.42	0.43
1:AA:979:C:OP2	1:AA:980:C:H5	2.02	0.43
1:AA:1202:U:HO2'	1:AA:1203:C:C5'	2.32	0.43
1:AA:1326:U:H2'	1:AA:1327:C:C6	2.53	0.43
1:AA:1400:C:H4'	1:AA:1401:G:OP2	2.19	0.43
1:AA:1465:A:H2'	1:AA:1466:C:C6	2.53	0.43
3:AC:9:ILE:HG23	3:AC:10:ARG:HH11	1.84	0.43
3:AC:10:ARG:HH21	3:AC:181:ILE:HG13	1.83	0.43
5:AE:75:LEU:HD21	5:AE:119:VAL:CG1	2.47	0.43
7:AG:25:PHE:CE1	7:AG:104:VAL:CG2	3.01	0.43
8:AH:20:ASN:HA	8:AH:64:TYR:HE2	1.83	0.43
10:AJ:44:THR:CG2	10:AJ:69:THR:O	2.67	0.43
10:AJ:102:LEU:N	10:AJ:102:LEU:HD22	2.34	0.43
11:AK:21:HIS:CD2	11:AK:34:THR:HG22	2.53	0.43
14:AN:22:LYS:CG	14:AN:23:ARG:H	2.08	0.43
15:AO:2:LEU:HB3	15:AO:7:THR:CG2	2.49	0.43
16:AP:5:ARG:HA	16:AP:68:SER:OG	2.18	0.43
16:AP:23:ASP:OD1	16:AP:23:ASP:C	2.62	0.43
18:AR:44:THR:OG1	18:AR:46:THR:CG2	2.65	0.43
19:AS:62:THR:O	19:AS:63:ASP:C	2.61	0.43
22:BA:146:A:H2'	22:BA:147:C:C6	2.54	0.43
22:BA:153:U:C2'	22:BA:154:U:C5'	2.96	0.43
22:BA:391:A:C5	22:BA:411:G:C2	3.06	0.43
22:BA:466:A:H5''	22:BA:467:G:OP2	2.18	0.43
22:BA:638:G:O6	22:BA:651:G:C6	2.72	0.43
22:BA:915:C:H2'	22:BA:916:G:H5'	2.00	0.43
22:BA:928:A:C2	47:BZ:46:MET:HE1	2.53	0.43
22:BA:996:A:C3'	38:BQ:91:ARG:HG2	2.49	0.43
22:BA:1023:U:C2'	22:BA:1024:G:H5'	2.49	0.43
22:BA:1027:A:C6	22:BA:1126:A:N3	2.86	0.43
22:BA:1073:A:H2'	22:BA:1074:G:C4'	2.46	0.43
22:BA:1324:G:C4	22:BA:1328:A:N6	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1636:U:H2'	22:BA:1637:A:C8	2.54	0.43
22:BA:1760:C:OP1	22:BA:2712:C:H5	2.02	0.43
22:BA:2293:G:H2'	22:BA:2294:G:O4'	2.19	0.43
22:BA:2315:G:H2'	22:BA:2316:G:O5'	2.18	0.43
22:BA:2331:G:H4'	44:BW:39:GLN:O	2.19	0.43
22:BA:2470:G:N2	22:BA:2471:A:C4	2.87	0.43
22:BA:2691:C:O3'	22:BA:2871:U:H4'	2.19	0.43
24:BC:199:HIS:O	24:BC:201:LEU:N	2.51	0.43
25:BD:180:VAL:CG1	25:BD:181:ASP:N	2.82	0.43
26:BE:25:GLU:HA	26:BE:28:VAL:CG1	2.49	0.43
26:BE:91:ASP:OD2	26:BE:91:ASP:C	2.61	0.43
26:BE:132:LYS:HB3	26:BE:132:LYS:HZ3	1.81	0.43
27:BF:3:LEU:HD13	27:BF:3:LEU:HA	1.67	0.43
27:BF:42:ALA:CB	27:BF:49:LEU:HB2	2.47	0.43
28:BG:76:ILE:CG2	28:BG:77:GLY:N	2.81	0.43
31:BJ:12:LYS:O	31:BJ:13:ARG:HB2	2.18	0.43
34:BM:34:LYS:HG2	34:BM:35:ALA:N	2.33	0.43
37:BP:9:GLN:HA	37:BP:12:MET:HG3	2.00	0.43
41:BT:39:THR:HB	41:BT:42:GLU:HB3	1.90	0.43
42:BU:5:ARG:O	42:BU:6:ARG:C	2.61	0.43
42:BU:73:ASN:C	42:BU:75:ALA:N	2.77	0.43
42:BU:86:PHE:CE1	42:BU:101:THR:HG21	2.54	0.43
43:BV:82:TYR:N	43:BV:82:TYR:CD2	2.86	0.43
44:BW:18:LYS:H	44:BW:36:ILE:HG13	1.81	0.43
44:BW:19:ARG:CZ	44:BW:22:VAL:CB	2.97	0.43
51:B3:31:ILE:O	51:B3:31:ILE:HG13	2.19	0.43
53:CA:120:A:C6	53:CA:122:G:C6	3.07	0.43
53:CA:215:C:H2'	53:CA:216:U:O4'	2.19	0.43
53:CA:255:G:C4	53:CA:256:U:C5	3.06	0.43
53:CA:363:A:N6	53:CA:364:A:C6	2.86	0.43
53:CA:545:C:C2'	53:CA:546:A:H5'	2.49	0.43
53:CA:1066:C:H2'	53:CA:1067:A:N7	2.33	0.43
53:CA:1133:G:C6	53:CA:1134:G:N7	2.87	0.43
53:CA:1144:G:H5''	53:CA:1145:A:OP2	2.19	0.43
53:CA:1242:G:N2	53:CA:1302:C:O2	2.51	0.43
53:CA:1255:G:O2'	53:CA:1258:G:H1'	2.18	0.43
5:CE:76:ASN:HD22	5:CE:76:ASN:HA	1.58	0.43
6:CF:2:ARG:HG3	6:CF:4:TYR:CZ	2.54	0.43
6:CF:86:ARG:HH12	18:CR:63:TYR:HB3	1.75	0.43
54:CG:9:ARG:O	54:CG:10:LYS:HG3	2.18	0.43
8:CH:6:ILE:HG21	8:CH:76:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:103:VAL:O	8:CH:109:VAL:HA	2.19	0.43
9:CI:45:MET:HB3	9:CI:49:GLN:HG3	1.99	0.43
9:CI:49:GLN:HA	9:CI:52:GLU:CG	2.48	0.43
10:CJ:65:TYR:HB3	14:CN:95:LEU:HD11	2.00	0.43
11:CK:22:ILE:O	11:CK:22:ILE:HG22	2.17	0.43
11:CK:67:GLU:C	11:CK:69:CYS:H	2.24	0.43
12:CL:24:GLU:O	12:CL:25:ALA:HB3	2.19	0.43
55:CM:2:ARG:N	55:CM:2:ARG:HD2	2.34	0.43
14:CN:55:SER:C	14:CN:57:SER:N	2.77	0.43
20:CT:85:LEU:O	20:CT:86:ALA:HB2	2.18	0.43
21:CU:15:LEU:HD12	21:CU:15:LEU:C	2.40	0.43
22:DA:197:A:N3	22:DA:197:A:H2'	2.33	0.43
22:DA:271:G:O2'	22:DA:272:A:O5'	2.36	0.43
22:DA:291:G:N1	22:DA:350:G:C5	2.87	0.43
22:DA:333:G:O2'	22:DA:334:C:C5'	2.66	0.43
22:DA:428:A:H2'	22:DA:429:A:O4'	2.18	0.43
22:DA:462:C:H2'	22:DA:463:G:O4'	2.18	0.43
22:DA:502:A:C6	22:DA:505:A:C5	3.06	0.43
22:DA:599:A:N3	22:DA:659:G:C2	2.86	0.43
22:DA:671:C:O2'	22:DA:672:C:P	2.75	0.43
22:DA:718:A:H5'	22:DA:719:C:OP2	2.18	0.43
22:DA:728:G:C4	22:DA:730:A:C8	3.06	0.43
22:DA:1000:A:N6	22:DA:1001:A:N1	2.66	0.43
22:DA:1063:G:C5	22:DA:1064:C:N4	2.87	0.43
22:DA:1220:G:H2'	22:DA:1221:C:H6	1.83	0.43
22:DA:1273:U:H4'	22:DA:1275:A:OP1	2.18	0.43
22:DA:1308:A:N6	22:DA:1309:G:N1	2.67	0.43
22:DA:1361:G:H2'	22:DA:1362:C:H5'	1.99	0.43
22:DA:1402:U:C2'	22:DA:1403:A:O5'	2.64	0.43
22:DA:1417:C:C4'	22:DA:1587:G:N2	2.82	0.43
22:DA:1569:A:N1	22:DA:1570:A:C2	2.87	0.43
22:DA:1735:A:O2'	22:DA:1736:U:O5'	2.37	0.43
22:DA:1735:A:H2'	22:DA:1736:U:C6	2.54	0.43
22:DA:1930:G:O2'	22:DA:1931:U:P	2.76	0.43
22:DA:2337:G:O2'	22:DA:2338:C:H5'	2.18	0.43
22:DA:2418:A:C6	22:DA:2419:U:N3	2.87	0.43
22:DA:2557:G:H2'	22:DA:2558:C:C6	2.54	0.43
22:DA:2611:C:O2'	22:DA:2612:C:H5'	2.18	0.43
22:DA:2624:G:H2'	22:DA:2625:G:O4'	2.19	0.43
22:DA:2726:A:O2'	22:DA:2727:A:O5'	2.36	0.43
22:DA:2747:G:O6	22:DA:2755:C:H5''	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2805:C:H2'	22:DA:2806:C:O4'	2.18	0.43
22:DA:2817:U:C2'	22:DA:2818:U:O5'	2.67	0.43
22:DA:2850:A:N7	22:DA:2868:A:O2'	2.51	0.43
22:DA:2864:G:H2'	22:DA:2865:U:O4'	2.19	0.43
22:DA:2873:A:H5''	22:DA:2874:C:OP2	2.19	0.43
57:DB:35:C:H2'	57:DB:36:C:H4'	2.00	0.43
24:DC:242:HIS:HA	24:DC:243:PRO:HD3	1.82	0.43
25:DD:171:THR:C	25:DD:172:VAL:HG23	2.42	0.43
25:DD:183:GLU:CD	25:DD:183:GLU:N	2.76	0.43
26:DE:58:LYS:HA	26:DE:59:PRO:HD3	1.82	0.43
26:DE:88:ARG:O	26:DE:89:PRO:C	2.60	0.43
58:DF:140:ILE:O	58:DF:141:ASP:HB2	2.19	0.43
32:DK:87:LEU:HD23	32:DK:87:LEU:H	1.84	0.43
33:DL:86:GLU:HA	33:DL:86:GLU:OE2	2.18	0.43
33:DL:91:ASP:O	33:DL:92:LEU:C	2.62	0.43
34:DM:23:GLY:O	34:DM:101:VAL:HG12	2.18	0.43
35:DN:30:ARG:HD3	35:DN:74:GLU:OE2	2.18	0.43
37:DP:9:GLN:C	37:DP:11:GLN:N	2.75	0.43
37:DP:67:GLU:CD	37:DP:68:GLY:N	2.72	0.43
40:DS:17:VAL:HG13	40:DS:47:VAL:HG11	1.99	0.43
41:DT:68:LYS:O	41:DT:74:ILE:HG13	2.18	0.43
42:DU:82:VAL:O	42:DU:96:LYS:CG	2.67	0.43
43:DV:73:LYS:CB	43:DV:92:VAL:HG23	2.49	0.43
44:DW:20:LEU:HD11	44:DW:35:ILE:CD1	2.49	0.43
45:DX:37:PHE:HB2	45:DX:46:VAL:HG23	2.01	0.43
47:DZ:54:VAL:HG23	47:DZ:54:VAL:O	2.18	0.43
48:D0:27:LEU:HB3	48:D0:37:HIS:O	2.19	0.43
1:AA:21:G:C2	1:AA:22:G:C5	3.07	0.43
1:AA:89:U:C2	1:AA:90:C:C5	3.07	0.43
1:AA:152:A:C8	1:AA:153:C:C5	3.07	0.43
1:AA:184:G:H4'	1:AA:224:U:O3'	2.18	0.43
1:AA:411:A:C5	1:AA:429:U:C5	3.07	0.43
1:AA:539:A:H2'	1:AA:540:G:H8	1.80	0.43
1:AA:921:U:O2	5:AE:23:THR:HB	2.19	0.43
1:AA:996:A:O2'	1:AA:997:U:H5'	2.19	0.43
1:AA:1239:A:H1'	1:AA:1241:G:C4	2.54	0.43
1:AA:1308:U:O3'	13:AM:90:HIS:CE1	2.71	0.43
2:AB:138:ARG:HB2	2:AB:138:ARG:NH1	2.33	0.43
2:AB:170:ILE:H	2:AB:170:ILE:HG12	1.41	0.43
4:AD:57:LYS:HG2	4:AD:202:LEU:HD23	2.00	0.43
6:AF:25:TYR:O	6:AF:28:ALA:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AG:74:VAL:CG2	7:AG:85:GLN:NE2	2.80	0.43
8:AH:13:ILE:O	8:AH:14:ARG:C	2.62	0.43
12:AL:49:ARG:HG2	12:AL:89:LEU:HD21	1.99	0.43
13:AM:44:ILE:N	13:AM:44:ILE:CD1	2.82	0.43
15:AO:25:GLU:HG3	15:AO:69:LEU:HD11	1.99	0.43
16:AP:75:ILE:C	16:AP:77:GLU:N	2.76	0.43
22:BA:277:G:C8	22:BA:361:G:O6	2.72	0.43
22:BA:323:C:N4	22:BA:333:G:N7	2.67	0.43
22:BA:651:G:C5	22:BA:652:U:C5	3.06	0.43
22:BA:702:U:O2	22:BA:702:U:H2'	2.17	0.43
22:BA:763:G:O2'	22:BA:765:C:H5'	2.19	0.43
22:BA:818:G:H4'	22:BA:838:C:O3'	2.19	0.43
22:BA:988:A:C2'	22:BA:989:G:O5'	2.67	0.43
22:BA:1115:G:HO2'	22:BA:1116:G:P	2.41	0.43
22:BA:1177:G:H2'	22:BA:1178:C:O4'	2.19	0.43
22:BA:1638:C:H1'	22:BA:2698:U:O2'	2.19	0.43
22:BA:1782:U:H1'	22:BA:2609:U:O4'	2.19	0.43
22:BA:2532:G:H2'	22:BA:2533:U:C6	2.53	0.43
22:BA:2682:A:C8	25:BD:11:MET:HG3	2.53	0.43
22:BA:2802:G:H2'	22:BA:2803:G:O4'	2.18	0.43
23:BB:44:G:H1'	23:BB:47:C:H42	1.83	0.43
24:BC:142:ASN:O	24:BC:142:ASN:CG	2.60	0.43
26:BE:136:GLN:O	26:BE:137:LYS:C	2.61	0.43
31:BJ:40:HIS:O	31:BJ:41:LYS:CB	2.67	0.43
31:BJ:45:THR:H	38:BQ:59:LEU:HD21	1.83	0.43
31:BJ:55:ILE:HD12	31:BJ:56:VAL:O	2.17	0.43
31:BJ:121:LYS:HB2	31:BJ:121:LYS:HE3	1.76	0.43
32:BK:20:MET:C	32:BK:41:ILE:HD12	2.42	0.43
35:BN:14:SER:O	35:BN:18:GLN:HB3	2.18	0.43
35:BN:95:THR:CG2	35:BN:113:ILE:HG13	2.49	0.43
41:BT:10:VAL:HG23	41:BT:11:LEU:HD23	2.01	0.43
44:BW:16:GLU:C	44:BW:17:ALA:O	2.61	0.43
44:BW:40:ARG:N	44:BW:56:HIS:HB3	2.25	0.43
44:BW:51:GLY:O	44:BW:52:CYS:C	2.61	0.43
53:CA:104:G:C2	53:CA:105:G:C8	3.06	0.43
53:CA:254:G:O3'	17:CQ:70:LYS:HD3	2.19	0.43
53:CA:331:G:O2'	53:CA:332:G:P	2.76	0.43
53:CA:441:A:N6	53:CA:493:A:H62	2.16	0.43
53:CA:442:G:C6	53:CA:443:C:C4	3.07	0.43
53:CA:564:C:H2'	53:CA:565:U:C6	2.53	0.43
53:CA:644:U:O2'	53:CA:645:G:H5'	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:751:U:H1'	15:CO:22:GLY:O	2.19	0.43
53:CA:892:A:C5	53:CA:893:C:C5	3.07	0.43
53:CA:896:C:C2'	53:CA:897:C:H5'	2.48	0.43
53:CA:898:G:N2	53:CA:901:A:OP2	2.45	0.43
53:CA:913:A:O2'	53:CA:914:A:H5''	2.19	0.43
53:CA:1348:U:C2'	53:CA:1349:A:H8	2.32	0.43
53:CA:1380:U:C4'	53:CA:1381:U:OP1	2.62	0.43
3:CC:155:ARG:NE	3:CC:159:ALA:O	2.52	0.43
3:CC:163:ARG:O	3:CC:164:THR:HB	2.18	0.43
3:CC:181:ILE:CD1	3:CC:202:PHE:HB2	2.48	0.43
5:CE:12:GLU:HG2	5:CE:63:MET:HE3	2.01	0.43
5:CE:79:THR:CA	5:CE:121:ASN:ND2	2.81	0.43
5:CE:157:GLY:HA3	8:CH:63:LYS:HZ2	1.82	0.43
54:CG:4:ARG:HG2	54:CG:4:ARG:NH1	2.33	0.43
54:CG:75:LYS:HE2	54:CG:76:SER:H	1.84	0.43
9:CI:47:VAL:O	9:CI:50:PRO:HG2	2.18	0.43
10:CJ:37:ARG:CB	10:CJ:75:ASP:HB3	2.49	0.43
55:CM:13:HIS:CD2	55:CM:14:ALA:H	2.36	0.43
55:CM:14:ALA:HB1	55:CM:33:LEU:CD1	2.48	0.43
15:CO:28:VAL:O	15:CO:32:THR:N	2.40	0.43
56:CP:40:ASN:HB3	56:CP:49:GLY:O	2.18	0.43
21:CU:11:PHE:C	21:CU:11:PHE:CD1	2.97	0.43
21:CU:35:GLU:O	21:CU:36:PHE:HB2	2.19	0.43
22:DA:74:A:H5'	46:DY:48:ARG:HH22	1.83	0.43
22:DA:85:G:O2'	22:DA:86:G:H8	1.99	0.43
22:DA:138:U:H2'	22:DA:140:C:C1'	2.46	0.43
22:DA:186:G:N2	22:DA:211:C:O2	2.52	0.43
22:DA:228:C:H4'	22:DA:229:C:C6	2.54	0.43
22:DA:233:A:O2'	22:DA:234:U:H6	2.01	0.43
22:DA:273:G:O2'	22:DA:274:C:C5'	2.67	0.43
22:DA:628:G:O2'	22:DA:629:G:O5'	2.37	0.43
22:DA:669:G:N3	22:DA:669:G:H2'	2.32	0.43
22:DA:706:A:H2'	22:DA:707:G:O4'	2.18	0.43
22:DA:764:A:C2	22:DA:781:A:C4	3.07	0.43
22:DA:898:C:C5	22:DA:899:A:C5	3.07	0.43
22:DA:917:A:C2	22:DA:918:A:H1'	2.54	0.43
22:DA:956:G:H1'	34:DM:82:MET:HE1	1.97	0.43
22:DA:1064:C:H6	22:DA:1064:C:H5''	1.84	0.43
22:DA:1079:C:C4	22:DA:1088:A:C2	3.07	0.43
22:DA:1180:U:C4	22:DA:1181:U:C4	3.06	0.43
22:DA:1240:U:O2'	22:DA:1241:A:H5''	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1303:G:O2'	22:DA:1304:A:O5'	2.37	0.43
22:DA:1343:G:C2	22:DA:1344:U:C4	3.07	0.43
22:DA:1355:G:C2	22:DA:1356:G:C8	3.06	0.43
22:DA:1438:U:C5	22:DA:1552:A:N1	2.86	0.43
22:DA:1443:U:C2	22:DA:1444:G:C8	3.07	0.43
22:DA:1534:U:H3'	22:DA:1534:U:O2	2.19	0.43
22:DA:1663:G:C6	22:DA:1998:A:N6	2.87	0.43
22:DA:1997:C:H6	22:DA:1997:C:C5'	2.31	0.43
22:DA:2062:A:O2'	22:DA:2063:C:H5'	2.18	0.43
22:DA:2200:C:O2	22:DA:2226:C:N4	2.52	0.43
22:DA:2330:G:C2	22:DA:2386:A:C2	3.07	0.43
22:DA:2337:G:C2'	22:DA:2338:C:H5'	2.49	0.43
22:DA:2667:C:H2'	22:DA:2668:G:C8	2.54	0.43
22:DA:2700:A:N1	22:DA:2701:U:C4	2.86	0.43
22:DA:2898:U:C2	22:DA:2899:A:C8	3.06	0.43
26:DE:61:ARG:O	26:DE:62:GLN:C	2.61	0.43
26:DE:126:VAL:HG22	26:DE:127:GLU:CD	2.44	0.43
58:DF:3:LEU:O	58:DF:6:TYR:HB3	2.19	0.43
58:DF:111:ARG:HH12	58:DF:113:PHE:HE1	1.65	0.43
28:DG:71:LEU:HD13	28:DG:71:LEU:C	2.43	0.43
28:DG:151:ARG:HB3	28:DG:161:VAL:HG23	2.01	0.43
29:DH:75:LEU:HD12	29:DH:75:LEU:N	2.34	0.43
30:DI:78:LEU:C	30:DI:80:LYS:H	2.26	0.43
30:DI:119:ALA:O	30:DI:124:MET:HE3	2.19	0.43
33:DL:57:LEU:CA	33:DL:60:ARG:HG3	2.47	0.43
34:DM:34:LYS:NZ	43:DV:82:TYR:HA	2.33	0.43
35:DN:79:LEU:O	35:DN:80:PHE:HB2	2.18	0.43
37:DP:31:VAL:C	37:DP:32:VAL:HG12	2.44	0.43
38:DQ:57:ARG:C	38:DQ:59:LEU:N	2.73	0.43
39:DR:6:GLN:HA	39:DR:6:GLN:HE21	1.83	0.43
40:DS:41:LYS:C	40:DS:43:ALA:N	2.74	0.43
41:DT:83:ALA:O	41:DT:84:TYR:HB2	2.19	0.43
1:AA:40:C:O2	1:AA:40:C:H2'	2.18	0.43
1:AA:263:A:P	20:AT:73:ARG:HH11	2.41	0.43
1:AA:626:G:H2'	1:AA:627:G:C8	2.54	0.43
1:AA:729:A:C5	1:AA:730:G:C8	3.07	0.43
1:AA:752:G:O2'	1:AA:753:A:P	2.77	0.43
1:AA:1055:A:N6	1:AA:1206:G:C6	2.87	0.43
1:AA:1066:C:H5''	1:AA:1066:C:C6	2.52	0.43
1:AA:1498:U:C4'	1:AA:1499:A:OP1	2.65	0.43
2:AB:98:GLY:O	2:AB:102:ASN:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:162:VAL:CG2	2:AB:184:ALA:CB	2.97	0.43
4:AD:53:GLN:NE2	4:AD:201:GLU:HG2	2.33	0.43
4:AD:103:ARG:O	4:AD:167:PRO:HG2	2.18	0.43
4:AD:123:MET:HB3	4:AD:127:ARG:C	2.43	0.43
5:AE:80:LEU:HB2	5:AE:97:PRO:HB3	2.01	0.43
10:AJ:80:THR:HG22	10:AJ:82:LYS:H	1.83	0.43
10:AJ:92:LEU:O	10:AJ:93:ALA:HB3	2.19	0.43
13:AM:30:LYS:O	13:AM:34:ALA:HB3	2.18	0.43
16:AP:23:ASP:O	16:AP:24:SER:C	2.62	0.43
17:AQ:24:ILE:HB	17:AQ:41:THR:HB	2.01	0.43
19:AS:4:LEU:HD12	19:AS:4:LEU:N	2.33	0.43
22:BA:66:C:O2'	22:BA:67:U:H5'	2.18	0.43
22:BA:164:C:H5''	22:BA:164:C:H6	1.83	0.43
22:BA:258:G:H2'	22:BA:259:G:H8	1.84	0.43
22:BA:271:G:H4'	22:BA:272:A:OP1	2.18	0.43
22:BA:441:U:H2'	22:BA:442:G:C8	2.54	0.43
22:BA:619:G:C5'	22:BA:620:G:OP2	2.61	0.43
22:BA:783:A:C8	22:BA:784:G:H4'	2.54	0.43
22:BA:894:U:H2'	22:BA:895:U:H6	1.79	0.43
22:BA:1005:C:H1'	22:BA:1012:U:C4	2.54	0.43
22:BA:1022:G:C6	22:BA:1140:C:C4	3.07	0.43
22:BA:1306:C:O2	22:BA:1306:C:C2'	2.66	0.43
22:BA:1415:U:O2	22:BA:1415:U:C2'	2.61	0.43
22:BA:1433:A:H2'	22:BA:1434:A:O4'	2.18	0.43
22:BA:1656:C:O5'	22:BA:1656:C:H6	2.01	0.43
22:BA:1858:A:N6	22:BA:1884:G:H1'	2.34	0.43
22:BA:1870:C:H3'	22:BA:1871:A:C2	2.53	0.43
22:BA:2205:A:O2'	22:BA:2206:C:H5'	2.18	0.43
22:BA:2353:G:O2'	44:BW:31:LEU:CD2	2.67	0.43
22:BA:2374:C:C2'	22:BA:2375:G:H5'	2.48	0.43
22:BA:2403:C:N3	22:BA:2415:G:C2	2.86	0.43
22:BA:2504:U:C5	60:BA:3135:CLY:H151	2.54	0.43
22:BA:2531:A:C6	22:BA:2532:G:C5	3.06	0.43
22:BA:2850:A:OP2	22:BA:2866:U:N3	2.47	0.43
24:BC:118:GLY:O	24:BC:129:LEU:HD23	2.18	0.43
25:BD:24:VAL:HA	25:BD:189:VAL:O	2.19	0.43
25:BD:151:THR:C	25:BD:153:GLY:N	2.73	0.43
25:BD:181:ASP:OD2	25:BD:184:ARG:HD2	2.19	0.43
27:BF:20:ASN:O	27:BF:20:ASN:OD1	2.37	0.43
27:BF:125:GLY:HA3	27:BF:159:ALA:HB3	2.01	0.43
28:BG:59:ASP:O	28:BG:62:ALA:HB3	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:BH:120:GLY:O	29:BH:121:VAL:CG2	2.67	0.43
30:BI:56:VAL:CG2	30:BI:68:PHE:HB2	2.49	0.43
32:BK:64:ARG:C	32:BK:65:THR:CG2	2.90	0.43
34:BM:8:LYS:N	34:BM:8:LYS:CD	2.77	0.43
35:BN:2:ARG:HA	35:BN:5:LYS:HD2	2.00	0.43
35:BN:41:ALA:O	35:BN:42:LYS:C	2.60	0.43
38:BQ:60:TRP:O	38:BQ:64:ILE:HG13	2.19	0.43
39:BR:68:ARG:N	39:BR:93:PHE:CE2	2.87	0.43
40:BS:20:VAL:HG11	40:BS:44:ALA:HA	2.01	0.43
40:BS:24:ILE:CG2	40:BS:71:VAL:HG11	2.49	0.43
48:B0:8:THR:OG1	48:B0:10:SER:HB3	2.18	0.43
53:CA:25:C:H2'	53:CA:26:A:C8	2.54	0.43
53:CA:68:G:H2'	53:CA:69:G:O4'	2.19	0.43
53:CA:146:G:H2'	53:CA:147:G:H5'	2.01	0.43
53:CA:159:G:N3	53:CA:159:G:H2'	2.34	0.43
53:CA:203:G:H8	53:CA:203:G:O5'	2.02	0.43
53:CA:696:A:C5	53:CA:697:U:C5	3.06	0.43
53:CA:796:C:H4'	11:CK:126:ARG:HH21	1.83	0.43
53:CA:833:G:N2	53:CA:854:U:H1'	2.34	0.43
53:CA:970:C:H5''	53:CA:971:G:OP1	2.19	0.43
53:CA:1089:G:H2'	53:CA:1090:U:O4'	2.19	0.43
53:CA:1214:C:O2'	53:CA:1215:G:C5'	2.67	0.43
53:CA:1308:U:OP2	55:CM:97:ARG:HD3	2.19	0.43
53:CA:1452:C:H5'	53:CA:1453:G:C5	2.53	0.43
2:CB:202:ASN:HB3	2:CB:203:ASP:H	1.73	0.43
3:CC:22:PHE:CD2	10:CJ:97:ASP:HB2	2.54	0.43
3:CC:71:ARG:HH12	3:CC:74:ILE:HB	1.83	0.43
4:CD:53:GLN:HB3	4:CD:202:LEU:HD12	2.01	0.43
5:CE:95:MET:CE	5:CE:143:LEU:HD21	2.48	0.43
54:CG:72:VAL:O	54:CG:140:VAL:CG1	2.67	0.43
9:CI:109:GLN:CG	9:CI:110:VAL:H	2.31	0.43
10:CJ:57:VAL:CG2	10:CJ:58:ASN:N	2.66	0.43
12:CL:54:VAL:O	12:CL:61:GLU:HA	2.18	0.43
15:CO:27:GLN:O	15:CO:30:LEU:HB2	2.18	0.43
15:CO:30:LEU:HD23	15:CO:30:LEU:HA	1.90	0.43
56:CP:12:LYS:HG2	56:CP:13:LYS:HG2	2.01	0.43
18:CR:23:LYS:H	18:CR:23:LYS:HG2	1.57	0.43
21:CU:38:GLU:CA	21:CU:40:PRO:HD2	2.48	0.43
22:DA:125:A:OP2	50:D2:19:ARG:NH2	2.52	0.43
22:DA:128:C:H2'	22:DA:129:C:C6	2.53	0.43
22:DA:167:A:H3'	22:DA:168:G:H8	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:216:A:C4	22:DA:217:A:N7	2.87	0.43
22:DA:243:U:OP2	51:D3:7:ARG:NH1	2.52	0.43
22:DA:266:G:C2'	22:DA:267:C:O5'	2.66	0.43
22:DA:294:A:N1	22:DA:346:A:N1	2.67	0.43
22:DA:412:A:N6	22:DA:2411:A:H2'	2.34	0.43
22:DA:444:C:H6	22:DA:444:C:H2'	1.57	0.43
22:DA:446:G:C4'	22:DA:447:A:OP1	2.66	0.43
22:DA:528:A:O2'	22:DA:529:A:C5'	2.66	0.43
22:DA:638:G:O2'	22:DA:639:U:C6	2.70	0.43
22:DA:718:A:C3'	22:DA:719:C:H5'	2.49	0.43
22:DA:1138:G:H2'	22:DA:1139:G:O4'	2.18	0.43
22:DA:1255:U:H2'	22:DA:1255:U:H6	1.56	0.43
22:DA:1426:G:H5'	22:DA:1427:A:OP2	2.18	0.43
22:DA:1565:C:C4	22:DA:1567:G:C2	3.07	0.43
22:DA:1794:A:C2	22:DA:1795:C:C2	3.07	0.43
22:DA:2142:A:H3'	22:DA:2143:C:H4'	1.97	0.43
22:DA:2336:A:N1	44:DW:56:HIS:CE1	2.87	0.43
22:DA:2370:G:C6	22:DA:2371:G:C5	3.07	0.43
22:DA:2458:G:H2'	22:DA:2490:G:N1	2.28	0.43
22:DA:2656:U:O2'	22:DA:2657:A:H5'	2.19	0.43
22:DA:2658:C:H5''	28:DG:157:LYS:HD3	2.01	0.43
22:DA:2686:G:H2'	22:DA:2687:U:C6	2.54	0.43
22:DA:2756:U:C2'	22:DA:2757:A:H5'	2.46	0.43
57:DB:81:G:O2'	57:DB:82:U:H5'	2.19	0.43
24:DC:141:HIS:HB3	24:DC:142:ASN:H	1.60	0.43
25:DD:12:THR:HG22	25:DD:13:ARG:N	2.32	0.43
26:DE:12:LEU:O	26:DE:13:THR:HB	2.18	0.43
58:DF:35:LEU:O	58:DF:36:ASN:HB2	2.18	0.43
28:DG:38:ASP:O	28:DG:39:ALA:HB2	2.18	0.43
28:DG:154:GLU:C	28:DG:156:TYR:H	2.27	0.43
29:DH:43:ASN:O	29:DH:47:PHE:CD2	2.72	0.43
29:DH:71:LYS:N	29:DH:71:LYS:HD2	2.34	0.43
31:DJ:51:GLY:HA3	31:DJ:121:LYS:HE3	2.00	0.43
32:DK:59:LYS:HG2	32:DK:89:ASN:HA	2.00	0.43
34:DM:34:LYS:HD3	34:DM:131:VAL:CG2	2.49	0.43
35:DN:24:MET:CG	35:DN:44:LEU:HD22	2.44	0.43
35:DN:38:LEU:HG	35:DN:42:LYS:HD2	2.01	0.43
35:DN:67:PHE:HE2	35:DN:73:ASN:ND2	2.17	0.43
36:DO:30:ARG:NH2	36:DO:103:VAL:HG23	2.33	0.43
40:DS:40:ASN:OD1	40:DS:41:LYS:N	2.52	0.43
41:DT:60:THR:O	41:DT:61:LEU:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DW:23:LYS:HD2	44:DW:24:ARG:HB2	2.00	0.43
46:DY:22:LEU:CG	46:DY:23:ARG:NH1	2.82	0.43
47:DZ:11:SER:OG	47:DZ:13:ILE:HG13	2.18	0.43
1:AA:87:C:O2'	1:AA:88:U:O4'	2.36	0.43
1:AA:122:G:H8	1:AA:122:G:O5'	2.02	0.43
1:AA:393:A:OP2	16:AP:12:LYS:HD2	2.18	0.43
1:AA:559:A:H1'	1:AA:561:U:H2'	2.00	0.43
1:AA:705:G:H2'	1:AA:706:A:C5'	2.49	0.43
1:AA:882:C:O2'	1:AA:883:C:H5'	2.19	0.43
1:AA:1157:A:C6	1:AA:1180:A:C5	3.07	0.43
1:AA:1361:G:C2'	1:AA:1362:A:C5'	2.93	0.43
1:AA:1439:G:C6	1:AA:1440:U:C2	3.06	0.43
1:AA:1467:C:H2'	1:AA:1468:A:C8	2.54	0.43
2:AB:199:ILE:HA	2:AB:200:PRO:HD2	1.86	0.43
3:AC:22:PHE:CD2	3:AC:22:PHE:C	2.97	0.43
3:AC:33:ASP:O	3:AC:37:LYS:CB	2.67	0.43
3:AC:76:ILE:HG12	3:AC:83:VAL:CG2	2.49	0.43
3:AC:156:LEU:C	3:AC:158:GLY:N	2.77	0.43
4:AD:117:VAL:HG12	4:AD:130:ASN:O	2.19	0.43
4:AD:149:LYS:O	4:AD:151:GLN:OE1	2.36	0.43
5:AE:83:PRO:CB	5:AE:96:GLN:NE2	2.73	0.43
5:AE:154:ALA:HB3	5:AE:155:LYS:HE3	2.00	0.43
6:AF:3:HIS:CD2	6:AF:94:HIS:H	2.36	0.43
8:AH:110:MET:SD	8:AH:115:ALA:HA	2.58	0.43
9:AI:31:GLN:O	9:AI:32:ARG:HB2	2.18	0.43
10:AJ:36:VAL:HA	10:AJ:76:ILE:HA	2.01	0.43
14:AN:15:LEU:HA	14:AN:18:LYS:HD2	2.00	0.43
14:AN:30:ILE:HG22	14:AN:31:SER:N	2.33	0.43
16:AP:3:THR:CG2	16:AP:4:ILE:N	2.80	0.43
17:AQ:40:THR:CG2	17:AQ:41:THR:N	2.82	0.43
18:AR:20:ILE:H	18:AR:20:ILE:HG13	1.67	0.43
22:BA:118:A:N3	22:BA:178:G:H1'	2.34	0.43
22:BA:161:A:P	22:BA:162:U:H3'	2.59	0.43
22:BA:273:G:O2'	22:BA:274:C:O4'	2.36	0.43
22:BA:398:C:H2'	22:BA:399:U:O5'	2.19	0.43
22:BA:855:G:N3	44:BW:23:LYS:CG	2.81	0.43
22:BA:993:G:C6	22:BA:1162:G:C6	3.06	0.43
22:BA:1437:C:H2'	22:BA:1438:U:C6	2.53	0.43
22:BA:1496:A:H2'	22:BA:1498:C:N4	2.34	0.43
22:BA:1511:G:N2	22:BA:1512:C:C2	2.87	0.43
22:BA:1904:G:C2'	22:BA:1905:C:H5'	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2284:A:O2'	22:BA:2288:A:N1	2.39	0.43
22:BA:2817:U:H1'	22:BA:2836:U:O2	2.19	0.43
23:BB:109:A:H2'	23:BB:110:C:H6	1.82	0.43
24:BC:225:ASN:HB3	24:BC:226:PRO:HD2	2.01	0.43
24:BC:247:TRP:C	24:BC:249:VAL:H	2.25	0.43
31:BJ:28:LEU:O	31:BJ:29:ALA:C	2.60	0.43
31:BJ:54:ILE:O	31:BJ:54:ILE:CG1	2.67	0.43
33:BL:55:MET:HE2	33:BL:56:PRO:HD3	2.00	0.43
34:BM:21:ALA:HA	34:BM:97:GLN:HG2	2.01	0.43
34:BM:54:THR:O	34:BM:56:ALA:HB3	2.19	0.43
34:BM:136:MET:HE2	43:BV:57:TYR:CE2	2.53	0.43
37:BP:53:GLY:C	37:BP:55:HIS:N	2.75	0.43
47:BZ:33:HIS:O	47:BZ:34:THR:HB	2.19	0.43
50:B2:10:LEU:HD12	50:B2:10:LEU:O	2.19	0.43
50:B2:18:PHE:CD1	50:B2:18:PHE:C	2.96	0.43
53:CA:184:G:H2'	53:CA:185:U:C5	2.54	0.43
53:CA:322:C:O2'	20:CT:17:ARG:HG3	2.19	0.43
53:CA:560:A:H4'	53:CA:561:U:H5''	2.01	0.43
53:CA:960:U:HO2'	53:CA:1223:C:H4'	1.80	0.43
53:CA:1059:C:O2'	53:CA:1060:U:H5'	2.19	0.43
53:CA:1294:G:C2'	53:CA:1295:U:O5'	2.67	0.43
53:CA:1315:U:C5	53:CA:1316:G:N7	2.87	0.43
53:CA:1319:A:N6	53:CA:1323:G:N3	2.67	0.43
53:CA:1409:C:H5'	22:DA:1916:A:C6	2.53	0.43
2:CB:19:THR:CG2	2:CB:37:VAL:HG23	2.29	0.43
2:CB:26:MET:CE	2:CB:29:PHE:CE2	3.01	0.43
3:CC:179:ALA:HB1	3:CC:202:PHE:CD1	2.53	0.43
9:CI:127:SER:C	9:CI:129:ARG:H	2.24	0.43
12:CL:79:ILE:HD12	12:CL:96:THR:HG22	1.92	0.43
12:CL:113:ARG:CZ	12:CL:120:ARG:HA	2.49	0.43
17:CQ:25:GLU:HG3	17:CQ:40:THR:HG22	2.01	0.43
22:DA:3:U:C4	22:DA:4:U:C5	3.07	0.43
22:DA:14:A:H2'	22:DA:15:G:C8	2.53	0.43
22:DA:64:A:H2'	22:DA:65:U:C6	2.54	0.43
22:DA:117:G:C4'	22:DA:126:A:C2	3.02	0.43
22:DA:119:A:H5'	22:DA:120:U:OP1	2.19	0.43
22:DA:303:G:O2'	22:DA:304:U:H6	1.97	0.43
22:DA:323:C:H6	26:DE:165:HIS:NE2	2.17	0.43
22:DA:352:A:H3'	22:DA:353:C:C4'	2.49	0.43
22:DA:522:A:H2'	22:DA:523:C:H6	1.81	0.43
22:DA:647:G:C8	22:DA:648:G:N7	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:831:G:O3'	33:DL:38:GLN:N	2.52	0.43
22:DA:855:G:O2'	44:DW:23:LYS:HD3	2.19	0.43
22:DA:982:C:H3'	22:DA:982:C:O2	2.19	0.43
22:DA:1281:G:C2	22:DA:1290:C:N3	2.87	0.43
22:DA:1338:G:O6	41:DT:66:LYS:CE	2.66	0.43
22:DA:1345:C:H3'	22:DA:1345:C:P	2.58	0.43
22:DA:1361:G:H2'	22:DA:1362:C:C5'	2.48	0.43
22:DA:1371:G:C2	22:DA:1372:U:C5	3.06	0.43
22:DA:1517:G:N2	22:DA:1732:C:C5	2.87	0.43
22:DA:1555:G:O2'	22:DA:1556:C:C5'	2.51	0.43
22:DA:1722:A:O2'	22:DA:1723:G:O4'	2.37	0.43
22:DA:2563:U:O2	22:DA:2566:A:N7	2.52	0.43
24:DC:67:LYS:HG2	24:DC:150:GLY:HA2	2.00	0.43
24:DC:115:ILE:HB	24:DC:126:GLY:O	2.19	0.43
25:DD:73:VAL:HG22	25:DD:74:GLU:N	2.34	0.43
58:DF:43:ILE:CG2	58:DF:44:ALA:H	2.09	0.43
58:DF:94:ARG:HD3	58:DF:97:GLU:OE2	2.19	0.43
58:DF:146:ASP:HB3	58:DF:147:ARG:H	1.61	0.43
28:DG:135:ALA:O	28:DG:136:ASP:HB2	2.17	0.43
29:DH:1:MET:HE3	29:DH:23:ALA:CA	2.48	0.43
30:DI:60:VAL:HG22	30:DI:66:PHE:HE2	1.84	0.43
31:DJ:43:GLU:O	31:DJ:43:GLU:HG2	2.19	0.43
32:DK:8:LEU:HD12	32:DK:8:LEU:N	2.33	0.43
32:DK:21:CYS:SG	32:DK:39:ILE:HG22	2.59	0.43
35:DN:34:ILE:O	35:DN:112:TYR:HA	2.18	0.43
35:DN:84:GLY:N	35:DN:85:PRO:CD	2.82	0.43
38:DQ:4:LYS:HD2	38:DQ:7:VAL:HG22	1.98	0.43
38:DQ:59:LEU:C	38:DQ:59:LEU:HD13	2.44	0.43
39:DR:13:ARG:C	39:DR:13:ARG:HE	2.27	0.43
41:DT:3:ARG:CD	41:DT:42:GLU:HG2	2.41	0.43
41:DT:29:THR:CB	41:DT:87:LEU:H	2.16	0.43
44:DW:14:ASP:O	44:DW:15:SER:HB2	2.18	0.43
45:DX:44:ARG:HB3	45:DX:44:ARG:HH11	1.84	0.43
50:D2:1:MET:CG	50:D2:2:LYS:N	2.81	0.43
1:AA:32:A:C2'	1:AA:33:A:H8	2.29	0.43
1:AA:126:G:H2'	1:AA:127:G:O4'	2.18	0.43
1:AA:684:U:C1'	11:AK:39:ASN:O	2.62	0.43
1:AA:718:A:C8	11:AK:117:HIS:CB	2.94	0.43
1:AA:749:A:H2'	1:AA:750:C:C6	2.54	0.43
1:AA:752:G:H1'	1:AA:754:C:N4	2.34	0.43
1:AA:773:G:H2'	1:AA:774:G:O5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:961:U:OP2	1:AA:1223:C:C1'	2.67	0.43
1:AA:1364:U:C3'	1:AA:1365:G:H5'	2.49	0.43
2:AB:24:PRO:C	2:AB:26:MET:N	2.76	0.43
4:AD:123:MET:CA	4:AD:128:VAL:HA	2.45	0.43
5:AE:131:ASN:HA	5:AE:132:PRO:HD2	1.74	0.43
8:AH:83:ARG:C	8:AH:84:ILE:HD13	2.43	0.43
9:AI:79:ARG:NH1	9:AI:102:PHE:HD1	2.17	0.43
19:AS:52:ASN:HB3	19:AS:74:ALA:HB1	2.01	0.43
22:BA:96:C:O2'	22:BA:97:C:H5'	2.19	0.43
22:BA:532:A:H2'	22:BA:532:A:N3	2.34	0.43
22:BA:747:U:C6	22:BA:2613:U:C5	3.07	0.43
22:BA:945:A:C5'	22:BA:946:C:OP2	2.67	0.43
22:BA:1015:U:C2'	22:BA:1016:G:H5'	2.49	0.43
22:BA:1335:C:H2'	22:BA:1336:A:O5'	2.18	0.43
22:BA:1591:A:H2'	22:BA:1592:C:C6	2.53	0.43
22:BA:2080:A:C5'	45:BX:18:SER:CB	2.97	0.43
22:BA:2486:C:H2'	22:BA:2487:G:O5'	2.18	0.43
22:BA:2489:U:C4	22:BA:2490:G:C6	3.07	0.43
22:BA:2531:A:H5'	28:BG:156:TYR:CZ	2.53	0.43
22:BA:2748:A:H1'	28:BG:66:THR:HG23	2.00	0.43
22:BA:2786:U:C2'	22:BA:2787:C:H5'	2.49	0.43
24:BC:90:ILE:HG21	24:BC:102:TYR:CD1	2.53	0.43
25:BD:114:LYS:C	25:BD:114:LYS:CD	2.91	0.43
26:BE:151:GLY:CA	26:BE:192:ALA:HB2	2.47	0.43
27:BF:7:TYR:O	27:BF:11:VAL:HB	2.19	0.43
27:BF:24:VAL:CG2	27:BF:25:MET:N	2.81	0.43
27:BF:43:ILE:HA	27:BF:82:TYR:CZ	2.54	0.43
27:BF:76:PHE:O	27:BF:77:LYS:HB2	2.18	0.43
28:BG:10:VAL:O	28:BG:11:PRO:C	2.62	0.43
28:BG:53:PRO:HD3	28:BG:61:TRP:CZ3	2.54	0.43
28:BG:102:ILE:N	28:BG:114:HIS:O	2.51	0.43
29:BH:81:ALA:CB	29:BH:146:VAL:HA	2.48	0.43
30:BI:3:LYS:HD2	30:BI:4:VAL:H	1.82	0.43
32:BK:80:ASP:OD2	37:BP:61:ARG:NH1	2.51	0.43
34:BM:97:GLN:CD	34:BM:97:GLN:N	2.77	0.43
36:BO:7:ARG:HD2	36:BO:97:PHE:CZ	2.54	0.43
37:BP:58:PHE:HE2	37:BP:75:THR:HG22	1.84	0.43
39:BR:39:LEU:O	39:BR:40:MET:HB2	2.18	0.43
41:BT:17:SER:O	41:BT:18:GLU:HB3	2.19	0.43
42:BU:48:VAL:O	42:BU:48:VAL:HG13	2.18	0.43
44:BW:35:ILE:O	44:BW:37:VAL:HG23	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BX:50:VAL:CG1	45:BX:51:SER:N	2.79	0.43
52:B4:13:ASN:HB3	52:B4:28:SER:OG	2.19	0.43
53:CA:27:G:C4	53:CA:557:G:N2	2.87	0.43
53:CA:183:C:O2	53:CA:183:C:C2'	2.67	0.43
53:CA:455:G:N2	53:CA:478:A:C2	2.87	0.43
53:CA:744:C:O2'	53:CA:745:G:H5'	2.18	0.43
53:CA:882:C:N4	12:CL:5:GLN:HE21	2.16	0.43
53:CA:974:A:H5''	14:CN:70:HIS:ND1	2.34	0.43
53:CA:1036:A:O2'	53:CA:1037:C:H5'	2.18	0.43
53:CA:1129:C:N3	53:CA:1139:G:C6	2.87	0.43
2:CB:137:THR:O	2:CB:140:LEU:HB3	2.19	0.43
2:CB:163:ILE:HA	2:CB:185:ILE:HG12	2.01	0.43
3:CC:188:ALA:O	3:CC:194:VAL:HA	2.19	0.43
3:CC:190:THR:HB	3:CC:193:GLY:O	2.18	0.43
3:CC:191:THR:HB	3:CC:192:TYR:CE1	2.54	0.43
4:CD:116:LEU:HD21	4:CD:153:ARG:HD3	2.00	0.43
5:CE:48:GLY:HA3	5:CE:66:ALA:HB2	2.00	0.43
5:CE:56:PRO:HG2	5:CE:57:ALA:H	1.83	0.43
54:CG:89:GLU:O	54:CG:90:VAL:HG13	2.18	0.43
8:CH:65:PHE:CG	8:CH:66:GLN:N	2.84	0.43
10:CJ:15:HIS:O	10:CJ:16:ARG:C	2.61	0.43
22:DA:66:C:C4	22:DA:67:U:C4	3.06	0.43
22:DA:82:U:H2'	22:DA:83:A:C4'	2.49	0.43
22:DA:120:U:H5''	62:DA:3222:HOH:O	2.18	0.43
22:DA:191:A:O2'	22:DA:192:C:H5'	2.18	0.43
22:DA:253:C:H6	22:DA:253:C:O5'	2.02	0.43
22:DA:352:A:C4	22:DA:353:C:C1'	3.02	0.43
22:DA:373:U:O2'	22:DA:374:A:C8	2.72	0.43
22:DA:527:C:O2	22:DA:527:C:C2'	2.56	0.43
22:DA:531:C:O5'	22:DA:532:A:C8	2.70	0.43
22:DA:663:G:H5''	22:DA:664:G:OP2	2.18	0.43
22:DA:848:C:H2'	22:DA:849:A:H8	1.84	0.43
22:DA:1275:A:O2'	22:DA:1276:A:H1'	2.18	0.43
22:DA:1783:A:N1	22:DA:2587:A:H2'	2.34	0.43
22:DA:1788:C:O5'	22:DA:1788:C:H6	2.01	0.43
22:DA:2135:A:O2'	22:DA:2136:G:O4'	2.37	0.43
22:DA:2206:C:H2'	22:DA:2207:C:H6	1.84	0.43
22:DA:2206:C:C2	22:DA:2207:C:C5	3.07	0.43
22:DA:2218:G:C5	22:DA:2219:U:C5	3.07	0.43
22:DA:2344:U:O2'	22:DA:2345:G:C5'	2.67	0.43
22:DA:2532:G:O2'	22:DA:2657:A:N1	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2533:U:H4'	22:DA:2664:G:H4'	2.01	0.43
22:DA:2819:G:H1'	22:DA:2828:G:N2	2.33	0.43
57:DB:59:A:H2'	57:DB:60:C:C6	2.54	0.43
57:DB:69:G:H2'	57:DB:70:C:H6	1.84	0.43
24:DC:161:VAL:HG12	24:DC:162:GLN:N	2.33	0.43
25:DD:177:VAL:HA	25:DD:188:LEU:O	2.19	0.43
25:DD:180:VAL:HG22	25:DD:187:LEU:HD13	2.01	0.43
26:DE:72:SER:C	26:DE:74:LYS:H	2.26	0.43
58:DF:97:GLU:O	58:DF:97:GLU:HG2	2.16	0.43
58:DF:141:ASP:C	58:DF:143:ASP:H	2.26	0.43
28:DG:146:ASP:O	28:DG:149:ALA:HB3	2.19	0.43
29:DH:4:ILE:O	29:DH:36:ALA:HB1	2.19	0.43
29:DH:78:VAL:HG21	29:DH:144:VAL:HG12	1.99	0.43
33:DL:96:LYS:C	33:DL:98:ALA:H	2.27	0.43
34:DM:21:ALA:HB2	34:DM:98:PRO:O	2.19	0.43
41:DT:53:VAL:HG21	41:DT:92:ASN:HD22	1.83	0.43
43:DV:14:LYS:HD3	43:DV:18:ARG:HH11	1.84	0.43
46:DY:9:LYS:HB3	46:DY:12:GLU:HG3	2.00	0.43
49:D1:22:THR:HG23	49:D1:23:THR:N	2.33	0.43
1:AA:118:U:O4	1:AA:289:G:H4'	2.19	0.42
1:AA:234:C:O2'	1:AA:235:C:H5'	2.18	0.42
1:AA:272:C:H2'	1:AA:273:U:H6	1.83	0.42
1:AA:408:A:OP1	4:AD:109:THR:HG21	2.18	0.42
1:AA:449:G:C2'	1:AA:450:G:H5'	2.49	0.42
1:AA:548:G:O2'	1:AA:549:C:H5'	2.19	0.42
1:AA:1039:G:C6	1:AA:1040:U:C4	3.06	0.42
1:AA:1183:U:HO2'	1:AA:1184:G:P	2.42	0.42
1:AA:1468:A:O2'	1:AA:1469:C:H5''	2.19	0.42
4:AD:8:LEU:O	4:AD:9:LYS:C	2.61	0.42
6:AF:39:LEU:HD12	6:AF:40:GLU:N	2.34	0.42
9:AI:18:VAL:HG21	9:AI:82:ILE:N	2.34	0.42
12:AL:7:VAL:HG22	17:AQ:30:HIS:CD2	2.54	0.42
12:AL:71:HIS:HD1	12:AL:72:ASN:C	2.26	0.42
17:AQ:16:MET:O	17:AQ:19:SER:HB3	2.19	0.42
22:BA:49:A:C5	22:BA:177:G:C5	3.07	0.42
22:BA:148:U:H5''	22:BA:149:A:OP2	2.19	0.42
22:BA:170:U:H2'	22:BA:171:U:C6	2.50	0.42
22:BA:541:A:C6	22:BA:542:C:C4	3.07	0.42
22:BA:1064:C:O2'	30:BI:89:SER:HB2	2.18	0.42
22:BA:1125:G:H5'	52:B4:37:GLN:HG3	1.99	0.42
22:BA:1223:G:P	39:BR:68:ARG:NH1	2.92	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1239:G:H2'	22:BA:1240:U:O5'	2.18	0.42
22:BA:1358:G:O2'	22:BA:1359:A:H5'	2.19	0.42
22:BA:1637:A:H4'	22:BA:2711:A:O2'	2.19	0.42
22:BA:1866:A:N1	22:BA:1876:A:C8	2.87	0.42
22:BA:2076:U:O2	22:BA:2076:U:O4'	2.37	0.42
22:BA:2296:U:H4'	22:BA:2297:A:OP1	2.19	0.42
22:BA:2417:C:C2	22:BA:2418:A:C8	3.07	0.42
22:BA:2478:A:H5'	52:B4:32:LYS:HD3	2.01	0.42
22:BA:2841:C:H2'	22:BA:2842:G:C8	2.54	0.42
22:BA:2901:C:H6	22:BA:2901:C:OP2	2.02	0.42
24:BC:70:LYS:HE2	24:BC:73:ILE:HG13	2.01	0.42
25:BD:178:VAL:N	25:BD:188:LEU:O	2.50	0.42
26:BE:147:LEU:O	26:BE:168:ASP:O	2.37	0.42
26:BE:149:ILE:HD12	26:BE:175:ILE:HB	2.01	0.42
28:BG:1:SER:HA	28:BG:5:LYS:HG3	1.99	0.42
28:BG:148:ARG:HA	28:BG:161:VAL:HG11	2.01	0.42
30:BI:19:PRO:HB2	30:BI:22:PRO:HD2	2.02	0.42
30:BI:59:THR:HG22	30:BI:61:TYR:CE2	2.53	0.42
35:BN:30:ARG:HE	35:BN:30:ARG:HB2	1.57	0.42
38:BQ:111:LYS:HZ3	39:BR:50:GLY:HA2	1.83	0.42
39:BR:11:GLN:C	39:BR:12:HIS:CG	2.97	0.42
39:BR:43:ASN:HB3	39:BR:44:GLY:H	1.61	0.42
42:BU:10:VAL:CG1	42:BU:24:VAL:HG23	2.48	0.42
43:BV:42:LEU:HD13	43:BV:47:VAL:HG21	2.01	0.42
44:BW:16:GLU:HB2	44:BW:17:ALA:H	1.53	0.42
44:BW:45:HIS:HB2	44:BW:50:VAL:HG13	2.01	0.42
46:BY:17:GLU:O	46:BY:18:LEU:C	2.62	0.42
50:B2:8:SER:OG	50:B2:11:LYS:HG3	2.19	0.42
51:B3:21:PHE:O	51:B3:22:LYS:CB	2.66	0.42
53:CA:9:G:H8	53:CA:9:G:O5'	2.02	0.42
53:CA:35:G:C6	53:CA:36:C:C4	3.07	0.42
53:CA:82:G:C5	53:CA:89:U:C4	3.07	0.42
53:CA:154:U:C2'	53:CA:155:A:C5'	2.94	0.42
53:CA:155:A:C6	53:CA:156:C:C4	3.06	0.42
53:CA:187:G:N2	53:CA:190:A:OP2	2.52	0.42
53:CA:511:C:C2	53:CA:512:U:C5	3.07	0.42
53:CA:522:C:H41	12:CL:49:ARG:NH2	2.06	0.42
53:CA:738:C:C2	53:CA:739:C:C5	3.07	0.42
53:CA:846:G:O2'	53:CA:847:G:H5'	2.19	0.42
53:CA:922:G:O2'	53:CA:1398:A:C2	2.71	0.42
53:CA:961:U:O2'	53:CA:962:C:C5'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:981:U:O4	53:CA:1222:G:O6	2.37	0.42
53:CA:1003:G:N3	53:CA:1005:A:OP1	2.52	0.42
53:CA:1022:A:H2'	53:CA:1023:U:H6	1.84	0.42
53:CA:1092:A:N6	53:CA:1093:A:N6	2.66	0.42
53:CA:1258:G:O2'	53:CA:1259:C:C5'	2.64	0.42
53:CA:1386:G:O2'	53:CA:1387:G:H5'	2.18	0.42
53:CA:1495:U:O2'	53:CA:1496:C:H5'	2.19	0.42
53:CA:1514:G:H2'	53:CA:1515:G:C8	2.54	0.42
2:CB:162:VAL:HG11	2:CB:172:ILE:CD1	2.49	0.42
3:CC:87:ARG:HH11	3:CC:100:ILE:HG22	1.84	0.42
3:CC:124:GLU:CD	3:CC:124:GLU:H	2.27	0.42
4:CD:55:ARG:NH1	4:CD:55:ARG:HG3	2.33	0.42
4:CD:176:LYS:CG	4:CD:178:GLU:HB2	2.37	0.42
6:CF:30:THR:O	6:CF:30:THR:HG22	2.19	0.42
12:CL:23:LEU:HD11	12:CL:94:TYR:CE1	2.54	0.42
12:CL:73:LEU:HD23	12:CL:73:LEU:HA	1.83	0.42
20:CT:66:ILE:HD12	20:CT:70:LYS:HG2	2.00	0.42
22:DA:59:U:O2'	22:DA:73:A:H2'	2.19	0.42
22:DA:139:U:N3	41:DT:1:MET:N	2.62	0.42
22:DA:302:C:O2'	22:DA:303:G:O5'	2.37	0.42
22:DA:384:A:N6	22:DA:385:C:C2	2.87	0.42
22:DA:496:G:H2'	22:DA:497:A:O4'	2.19	0.42
22:DA:519:U:O2'	40:DS:73:LYS:NZ	2.49	0.42
22:DA:528:A:H2	22:DA:2043:C:H5'	1.83	0.42
22:DA:704:G:C2'	22:DA:726:G:N2	2.78	0.42
22:DA:859:G:H22	22:DA:916:G:H2'	1.81	0.42
22:DA:1179:G:H2'	22:DA:1180:U:H6	1.84	0.42
22:DA:1190:G:OP1	33:DL:32:GLY:HA2	2.19	0.42
22:DA:1364:G:H1'	22:DA:1368:G:H21	1.84	0.42
22:DA:1476:U:H1'	22:DA:1732:C:O2	2.18	0.42
22:DA:1525:A:H2'	22:DA:1526:C:H5'	2.01	0.42
22:DA:1735:A:N3	22:DA:1736:U:C6	2.87	0.42
22:DA:1819:A:H5''	24:DC:159:THR:HG21	2.01	0.42
22:DA:1983:G:O2'	22:DA:1984:G:H5'	2.19	0.42
22:DA:1993:U:O2'	22:DA:1994:C:H5'	2.18	0.42
22:DA:2077:A:C6	22:DA:2435:A:N6	2.87	0.42
22:DA:2085:U:H2'	22:DA:2086:U:H5'	1.99	0.42
22:DA:2221:G:C6	22:DA:2222:C:C4	3.07	0.42
22:DA:2577:A:H1'	22:DA:2612:C:N3	2.34	0.42
22:DA:2686:G:C6	22:DA:2687:U:C4	3.07	0.42
22:DA:2744:G:C4	22:DA:2761:A:N1	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2758:A:H2'	22:DA:2759:G:C5'	2.40	0.42
22:DA:2805:C:H2'	22:DA:2806:C:C6	2.54	0.42
57:DB:38:C:C2'	57:DB:39:A:H5'	2.49	0.42
57:DB:69:G:C5	57:DB:70:C:C6	3.07	0.42
57:DB:69:G:N9	57:DB:70:C:C6	2.86	0.42
57:DB:113:C:H1'	36:DO:45:SER:O	2.19	0.42
24:DC:93:VAL:HG13	24:DC:94:LEU:H	1.83	0.42
24:DC:94:LEU:CD1	24:DC:100:ARG:CD	2.96	0.42
24:DC:141:HIS:HB3	24:DC:190:THR:HB	2.00	0.42
25:DD:9:VAL:O	25:DD:9:VAL:HG22	2.19	0.42
25:DD:21:SER:CB	32:DK:73:ASP:O	2.67	0.42
25:DD:61:THR:O	25:DD:64:GLU:N	2.50	0.42
26:DE:131:THR:HG22	26:DE:161:ALA:N	2.33	0.42
58:DF:113:PHE:O	58:DF:114:ARG:HB3	2.19	0.42
29:DH:6:LEU:HD13	29:DH:36:ALA:CA	2.42	0.42
29:DH:9:VAL:HG11	29:DH:12:LEU:HD12	2.01	0.42
30:DI:64:ARG:HB2	30:DI:64:ARG:NH1	2.34	0.42
30:DI:132:ALA:HB1	30:DI:137:LEU:HB2	2.00	0.42
32:DK:69:VAL:HG12	32:DK:70:ARG:H	1.83	0.42
33:DL:76:GLU:O	33:DL:76:GLU:CG	2.66	0.42
33:DL:132:ARG:CA	33:DL:135:ILE:HG22	2.49	0.42
34:DM:10:ARG:HH21	34:DM:10:ARG:HG3	1.84	0.42
38:DQ:50:ARG:HD2	38:DQ:50:ARG:H	1.82	0.42
38:DQ:64:ILE:CD1	38:DQ:95:ALA:HB3	2.49	0.42
38:DQ:77:LYS:CE	38:DQ:116:LEU:HD11	2.48	0.42
39:DR:4:VAL:HG22	39:DR:40:MET:HB3	2.00	0.42
39:DR:89:HIS:CE1	39:DR:91:GLN:HB2	2.54	0.42
39:DR:98:ILE:HD12	39:DR:98:ILE:N	2.34	0.42
44:DW:16:GLU:O	44:DW:17:ALA:HB3	2.20	0.42
44:DW:31:LEU:C	44:DW:33:GLY:N	2.68	0.42
50:D2:9:VAL:CG1	50:D2:10:LEU:N	2.82	0.42
50:D2:11:LYS:O	50:D2:12:ARG:C	2.61	0.42
1:AA:75:G:N3	1:AA:76:G:H1'	2.35	0.42
1:AA:82:G:H2'	1:AA:83:C:H4'	2.01	0.42
1:AA:173:U:H5''	1:AA:174:A:OP2	2.19	0.42
1:AA:414:A:N6	1:AA:431:A:C4	2.87	0.42
1:AA:489:C:O2'	1:AA:490:C:H5'	2.19	0.42
1:AA:564:C:O2'	1:AA:565:U:C5'	2.67	0.42
1:AA:647:C:O2'	1:AA:648:A:H5'	2.19	0.42
1:AA:654:G:C5	1:AA:753:A:C5	3.07	0.42
1:AA:689:C:H2'	1:AA:690:G:H5'	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:810:C:O2'	1:AA:811:C:H5'	2.19	0.42
1:AA:935:A:O2'	1:AA:936:C:O4'	2.30	0.42
1:AA:977:A:C2	1:AA:1362:A:N6	2.87	0.42
1:AA:1240:U:N3	7:AG:29:LEU:CD2	2.80	0.42
1:AA:1343:G:O3'	9:AI:123:ARG:CB	2.66	0.42
1:AA:1449:C:H2'	1:AA:1450:U:H5'	2.00	0.42
4:AD:195:ASN:HB3	4:AD:196:GLU:H	1.69	0.42
9:AI:82:ILE:O	9:AI:86:LEU:N	2.51	0.42
9:AI:113:LYS:HG2	9:AI:114:LYS:H	1.83	0.42
10:AJ:7:ARG:O	10:AJ:100:ILE:HA	2.19	0.42
10:AJ:51:VAL:O	10:AJ:62:ARG:HA	2.19	0.42
10:AJ:81:GLU:HA	10:AJ:84:VAL:HG12	2.01	0.42
12:AL:34:THR:C	12:AL:35:ARG:HE	2.27	0.42
22:BA:12:U:C2'	22:BA:13:A:O5'	2.66	0.42
22:BA:479:A:C2	22:BA:480:A:C2	3.07	0.42
22:BA:572:A:H2'	22:BA:573:U:O4'	2.19	0.42
22:BA:1000:A:C6	22:BA:1155:A:C8	3.07	0.42
22:BA:1004:U:C2'	22:BA:1005:C:OP2	2.67	0.42
22:BA:1060:U:H5''	22:BA:1061:U:H5'	2.00	0.42
22:BA:1062:G:O2'	22:BA:1063:G:O4'	2.36	0.42
22:BA:1080:A:H2'	22:BA:1081:U:H6	1.83	0.42
22:BA:1084:A:C4	22:BA:1085:A:C8	3.07	0.42
22:BA:1106:G:C4	22:BA:1107:G:C8	3.07	0.42
22:BA:1148:U:C6	22:BA:1148:U:H3'	2.54	0.42
22:BA:1522:A:H1'	22:BA:1524:G:C5	2.54	0.42
22:BA:1669:A:N3	22:BA:1669:A:C2'	2.82	0.42
22:BA:1853:A:C5	22:BA:1889:A:C6	3.07	0.42
22:BA:2794:C:H2'	22:BA:2795:C:C6	2.54	0.42
22:BA:2795:C:H2'	22:BA:2796:U:H6	1.84	0.42
22:BA:2805:C:C4	22:BA:2806:C:C4	3.07	0.42
22:BA:2845:U:O2'	22:BA:2846:G:H5'	2.19	0.42
24:BC:199:HIS:C	24:BC:201:LEU:H	2.27	0.42
25:BD:182:ALA:C	25:BD:183:GLU:HG3	2.42	0.42
27:BF:56:LEU:HD23	27:BF:56:LEU:HA	1.78	0.42
27:BF:133:GLU:N	27:BF:150:GLY:CA	2.82	0.42
28:BG:27:GLY:O	28:BG:29:ASN:O	2.37	0.42
28:BG:44:HIS:O	28:BG:45:ALA:O	2.37	0.42
29:BH:104:THR:O	29:BH:104:THR:HG23	2.17	0.42
29:BH:131:SER:CB	29:BH:139:PHE:HD2	2.30	0.42
30:BI:53:PRO:HB2	30:BI:74:PRO:CG	2.49	0.42
31:BJ:113:PRO:HD3	31:BJ:116:ARG:NH1	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:BL:3:LEU:HD23	33:BL:3:LEU:HA	1.81	0.42
34:BM:68:PHE:C	34:BM:68:PHE:HD2	2.24	0.42
34:BM:74:THR:HG22	34:BM:88:ASN:C	2.44	0.42
41:BT:27:SER:O	41:BT:28:ASN:OD1	2.37	0.42
41:BT:61:LEU:HG	41:BT:82:LYS:HB3	2.01	0.42
43:BV:81:PRO:HB2	43:BV:82:TYR:CD2	2.55	0.42
45:BX:29:LEU:HB2	45:BX:30:PRO:HD3	2.00	0.42
46:BY:7:ARG:O	46:BY:7:ARG:HG3	2.18	0.42
49:B1:38:PHE:CZ	49:B1:43:ARG:HA	2.53	0.42
53:CA:14:U:HO2'	53:CA:15:G:P	2.42	0.42
53:CA:33:A:N3	53:CA:34:C:C6	2.88	0.42
53:CA:80:A:C5	53:CA:81:A:H1'	2.53	0.42
53:CA:208:U:C4	53:CA:212:G:N1	2.87	0.42
53:CA:237:G:C6	53:CA:238:A:C5	3.07	0.42
53:CA:240:G:H5''	53:CA:240:G:H8	1.83	0.42
53:CA:386:C:C4	53:CA:387:U:C5	3.07	0.42
53:CA:411:A:H4'	53:CA:412:A:OP1	2.15	0.42
53:CA:501:C:H1'	53:CA:549:C:O2'	2.19	0.42
53:CA:580:C:H2'	53:CA:581:G:C8	2.54	0.42
53:CA:734:G:N2	18:CR:63:TYR:CE2	2.87	0.42
53:CA:1190:G:OP1	3:CC:3:LYS:HA	2.19	0.42
53:CA:1217:C:O2'	53:CA:1218:C:O5'	2.37	0.42
53:CA:1397:C:H5''	53:CA:1398:A:C8	2.54	0.42
53:CA:1442:G:H2'	53:CA:1443:C:H6	1.84	0.42
3:CC:15:LYS:HG3	3:CC:16:PRO:HD2	1.99	0.42
3:CC:149:LYS:O	3:CC:200:TRP:HE3	2.01	0.42
4:CD:106:PHE:HB3	4:CD:154:VAL:CG2	2.49	0.42
5:CE:82:HIS:NE2	8:CH:95:MET:HE3	2.33	0.42
6:CF:41:ASP:OD2	6:CF:41:ASP:C	2.61	0.42
6:CF:47:LEU:HD22	18:CR:65:SER:HB3	2.00	0.42
55:CM:6:ILE:HD12	55:CM:7:ASN:OD1	2.19	0.42
18:CR:51:GLN:OE1	18:CR:51:GLN:CA	2.68	0.42
20:CT:53:MET:HE3	20:CT:53:MET:C	2.44	0.42
22:DA:55:G:C2	22:DA:116:C:N3	2.87	0.42
22:DA:117:G:C6	22:DA:119:A:N1	2.87	0.42
22:DA:143:C:O2'	22:DA:144:A:C1'	2.67	0.42
22:DA:184:C:H2'	22:DA:185:G:H8	1.82	0.42
22:DA:250:G:O6	22:DA:386:G:N1	2.50	0.42
22:DA:282:A:C6	22:DA:283:G:C5	3.07	0.42
22:DA:311:A:H61	22:DA:330:A:C5'	2.31	0.42
22:DA:443:A:H2'	26:DE:40:ARG:NE	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:577:G:H2'	22:DA:578:G:C8	2.54	0.42
22:DA:605:G:O2'	22:DA:606:U:H5'	2.19	0.42
22:DA:617:G:O2'	22:DA:618:G:O5'	2.37	0.42
22:DA:961:C:C5	22:DA:2456:C:O4'	2.66	0.42
22:DA:976:G:O2'	22:DA:977:G:H5'	2.19	0.42
22:DA:976:G:H5'	22:DA:1156:A:C6	2.54	0.42
22:DA:1112:G:O2'	22:DA:1113:U:H5'	2.18	0.42
22:DA:1353:A:C2	22:DA:1378:A:C2	3.07	0.42
22:DA:1364:G:N3	22:DA:1368:G:N2	2.67	0.42
22:DA:1371:G:N3	22:DA:1372:U:C5	2.87	0.42
22:DA:1394:U:C3'	22:DA:1394:U:C6	3.02	0.42
22:DA:1419:A:N7	22:DA:1421:G:C6	2.88	0.42
22:DA:1439:A:N7	22:DA:1440:U:O4'	2.51	0.42
22:DA:1500:G:H2'	22:DA:1501:G:O5'	2.19	0.42
22:DA:1510:G:N2	22:DA:1511:G:N3	2.66	0.42
22:DA:1512:C:C5	22:DA:1513:U:C5	3.07	0.42
22:DA:1598:A:C2	22:DA:1599:U:C2	3.07	0.42
22:DA:1766:G:H2'	22:DA:1767:G:O5'	2.20	0.42
22:DA:1835:G:C5	22:DA:1836:C:C5	3.06	0.42
22:DA:1867:G:C2	22:DA:1868:C:C2	3.07	0.42
22:DA:2048:G:C6	22:DA:2049:G:C5	3.08	0.42
22:DA:2582:G:N2	22:DA:2583:G:C8	2.88	0.42
57:DB:11:C:C5	57:DB:12:C:C5	3.07	0.42
57:DB:47:C:H5''	57:DB:48:U:OP2	2.19	0.42
24:DC:2:VAL:HB	24:DC:3:VAL:H	1.59	0.42
24:DC:177:SER:O	24:DC:270:ARG:HG3	2.19	0.42
25:DD:33:ARG:NH1	25:DD:74:GLU:CD	2.77	0.42
26:DE:153:LEU:HD23	26:DE:154:ASP:N	2.34	0.42
58:DF:8:LYS:HG3	58:DF:12:VAL:HG21	2.00	0.42
58:DF:41:GLU:HG2	58:DF:42:ALA:N	2.23	0.42
28:DG:94:ARG:CZ	28:DG:105:SER:HB2	2.49	0.42
28:DG:117:PRO:HD2	28:DG:120:ILE:CG2	2.50	0.42
30:DI:106:GLN:O	30:DI:106:GLN:HG3	2.19	0.42
32:DK:34:GLY:C	32:DK:35:VAL:CG2	2.92	0.42
32:DK:113:MET:O	32:DK:116:ILE:CG1	2.68	0.42
33:DL:124:GLY:N	33:DL:143:GLU:HG3	2.20	0.42
35:DN:28:LEU:C	35:DN:28:LEU:CD2	2.90	0.42
35:DN:51:LEU:HA	35:DN:51:LEU:HD23	1.88	0.42
36:DO:64:TYR:C	36:DO:66:GLY:H	2.26	0.42
38:DQ:4:LYS:HE3	38:DQ:7:VAL:H	1.80	0.42
38:DQ:61:ILE:HD12	38:DQ:61:ILE:N	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DT:44:LYS:HE2	41:DT:48:GLN:CD	2.44	0.42
44:DW:17:ALA:O	44:DW:18:LYS:CB	2.47	0.42
45:DX:61:LYS:O	45:DX:65:THR:HB	2.20	0.42
46:DY:1:MET:C	46:DY:2:LYS:HG3	2.44	0.42
46:DY:42:LEU:O	46:DY:42:LEU:HD23	2.18	0.42
50:D2:1:MET:HG3	50:D2:2:LYS:N	2.34	0.42
50:D2:23:ALA:O	50:D2:24:THR:CB	2.67	0.42
50:D2:34:ARG:NH1	50:D2:39:ARG:HG2	2.33	0.42
1:AA:19:A:N3	1:AA:917:G:C2	2.87	0.42
1:AA:91:U:H2'	1:AA:92:U:C1'	2.49	0.42
1:AA:577:G:C4'	1:AA:816:A:H2'	2.49	0.42
1:AA:684:U:O2	11:AK:40:ALA:HB3	2.19	0.42
1:AA:889:A:O3'	1:AA:890:G:H4'	2.19	0.42
1:AA:958:A:C6	1:AA:959:A:N1	2.87	0.42
1:AA:1324:A:O2'	1:AA:1325:C:O4'	2.36	0.42
1:AA:1469:C:H6	1:AA:1469:C:H5'	1.84	0.42
2:AB:44:LYS:HD2	2:AB:44:LYS:HA	1.92	0.42
3:AC:35:ASP:O	3:AC:38:VAL:HG22	2.19	0.42
4:AD:58:GLN:HE21	4:AD:58:GLN:HA	1.84	0.42
5:AE:24:VAL:O	5:AE:27:GLY:O	2.37	0.42
7:AG:4:ARG:NE	7:AG:4:ARG:CA	2.81	0.42
10:AJ:56:HIS:C	10:AJ:57:VAL:HG12	2.44	0.42
11:AK:21:HIS:HD2	11:AK:34:THR:HG22	1.83	0.42
13:AM:5:GLY:HA3	13:AM:65:GLU:HG3	2.00	0.42
13:AM:47:LEU:C	13:AM:47:LEU:CD2	2.92	0.42
14:AN:61:ASN:HD22	14:AN:61:ASN:HA	1.57	0.42
15:AO:15:GLY:O	15:AO:17:ASP:N	2.52	0.42
15:AO:86:LEU:C	15:AO:88:ARG:N	2.78	0.42
16:AP:30:GLY:O	16:AP:31:ARG:C	2.62	0.42
16:AP:79:ASN:O	16:AP:80:LYS:CB	2.60	0.42
22:BA:244:A:C2	22:BA:255:A:C4	3.07	0.42
22:BA:289:G:C2	22:BA:290:U:C2	3.07	0.42
22:BA:323:C:N4	22:BA:333:G:C5	2.87	0.42
22:BA:408:G:O2'	22:BA:409:G:H5'	2.19	0.42
22:BA:477:A:C6	22:BA:478:A:C6	3.07	0.42
22:BA:597:G:C6	22:BA:598:U:N3	2.87	0.42
22:BA:743:A:C2'	22:BA:744:U:H5'	2.49	0.42
22:BA:754:U:H2'	22:BA:755:U:C6	2.54	0.42
22:BA:777:G:O2'	22:BA:778:G:H5'	2.19	0.42
22:BA:789:A:H5''	62:BA:3748:HOH:O	2.19	0.42
22:BA:812:C:O2'	22:BA:813:U:H5'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1153:C:H2'	22:BA:1154:G:C8	2.54	0.42
22:BA:1180:U:H2'	22:BA:1181:U:C6	2.54	0.42
22:BA:1220:G:H2'	22:BA:1221:C:C6	2.54	0.42
22:BA:1260:A:C6	22:BA:1261:C:C4	3.07	0.42
22:BA:1381:G:H2'	22:BA:1382:G:C5'	2.48	0.42
22:BA:1825:U:H2'	22:BA:1826:G:O4'	2.19	0.42
22:BA:1845:G:C2'	22:BA:1846:G:H5'	2.49	0.42
22:BA:1910:G:N2	22:BA:1921:G:C4	2.87	0.42
22:BA:1912:A:N1	22:BA:1919:A:N7	2.67	0.42
22:BA:2032:G:N2	22:BA:2572:A:OP2	2.50	0.42
22:BA:2197:U:O2'	22:BA:2198:A:C3'	2.64	0.42
22:BA:2359:C:O2	22:BA:2359:C:C2'	2.67	0.42
22:BA:2458:G:H2'	22:BA:2490:G:H1	1.84	0.42
22:BA:2489:U:O2	22:BA:2491:U:C4	2.73	0.42
22:BA:2573:C:H6	22:BA:2573:C:C5'	2.32	0.42
22:BA:2587:A:N6	22:BA:2608:G:H1'	2.34	0.42
22:BA:2712:C:H2'	22:BA:2714:G:O3'	2.19	0.42
22:BA:2846:G:OP1	37:BP:50:ARG:O	2.37	0.42
22:BA:2846:G:P	37:BP:51:ASN:HB2	2.59	0.42
24:BC:165:ALA:HB3	24:BC:172:THR:HG23	2.01	0.42
25:BD:97:SER:OG	25:BD:98:VAL:N	2.52	0.42
26:BE:5:LEU:CD1	26:BE:10:SER:HB3	2.49	0.42
26:BE:29:HIS:HA	26:BE:32:VAL:HG22	2.01	0.42
28:BG:33:THR:H	28:BG:34:ARG:NH1	2.17	0.42
28:BG:83:THR:O	28:BG:84:LYS:HB3	2.18	0.42
31:BJ:57:LEU:HD12	31:BJ:57:LEU:HA	1.70	0.42
32:BK:3:GLN:O	32:BK:6:THR:HB	2.19	0.42
35:BN:73:ASN:CA	35:BN:76:VAL:HG12	2.48	0.42
36:BO:57:ALA:C	36:BO:59:ALA:H	2.27	0.42
38:BQ:31:TYR:HH	38:BQ:35:PHE:HD2	1.62	0.42
38:BQ:93:ILE:CG2	38:BQ:94:LEU:N	2.47	0.42
40:BS:29:VAL:HG13	40:BS:55:ILE:CD1	2.37	0.42
40:BS:39:THR:CG2	40:BS:44:ALA:HB2	2.46	0.42
44:BW:53:GLY:O	44:BW:56:HIS:N	2.51	0.42
44:BW:67:LYS:HE2	44:BW:67:LYS:HA	2.01	0.42
44:BW:70:VAL:CG2	44:BW:75:ASN:HA	2.49	0.42
49:B1:35:LEU:HD23	49:B1:35:LEU:C	2.43	0.42
53:CA:176:C:C2'	53:CA:177:G:O5'	2.67	0.42
53:CA:176:C:H2'	53:CA:177:G:O5'	2.19	0.42
53:CA:276:G:O2'	53:CA:277:C:O5'	2.37	0.42
53:CA:415:A:H3'	53:CA:416:G:H8	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:665:A:H2'	53:CA:725:G:H22	1.77	0.42
53:CA:750:C:H4'	15:CO:20:ASP:HB2	2.01	0.42
53:CA:909:A:H2'	53:CA:910:C:O4'	2.20	0.42
53:CA:1072:G:C4	53:CA:1073:U:C6	3.08	0.42
53:CA:1092:A:N6	53:CA:1093:A:C6	2.88	0.42
53:CA:1269:A:C2'	53:CA:1270:G:H5'	2.50	0.42
53:CA:1278:G:C4'	53:CA:1279:G:H5'	2.45	0.42
2:CB:20:ARG:NE	2:CB:20:ARG:CA	2.82	0.42
2:CB:60:ALA:C	2:CB:62:ARG:H	2.27	0.42
3:CC:32:LEU:HD12	14:CN:76:PHE:HA	2.02	0.42
4:CD:34:GLU:HB3	4:CD:35:GLN:H	1.51	0.42
4:CD:121:ALA:O	4:CD:145:ARG:CB	2.65	0.42
9:CI:7:GLY:HA3	9:CI:84:ARG:O	2.19	0.42
11:CK:74:LYS:HD2	11:CK:104:PHE:HE1	1.83	0.42
12:CL:113:ARG:NH2	12:CL:120:ARG:HA	2.34	0.42
55:CM:65:GLU:H	55:CM:65:GLU:HG3	1.69	0.42
15:CO:34:GLN:OE1	15:CO:38:LEU:HD22	2.19	0.42
17:CQ:7:LEU:HD22	17:CQ:7:LEU:N	2.34	0.42
20:CT:25:SER:O	20:CT:26:MET:C	2.62	0.42
20:CT:61:ALA:C	20:CT:67:HIS:HA	2.44	0.42
22:DA:37:C:O2'	26:DE:45:ALA:HB2	2.20	0.42
22:DA:98:G:N3	22:DA:98:G:H2'	2.34	0.42
22:DA:219:A:N7	22:DA:220:G:C5	2.87	0.42
22:DA:374:A:O2'	22:DA:375:G:O5'	2.38	0.42
22:DA:617:G:O2'	22:DA:618:G:O4'	2.37	0.42
22:DA:695:G:C4	22:DA:768:G:C2	3.08	0.42
22:DA:704:G:O2'	22:DA:705:A:P	2.77	0.42
22:DA:927:A:N1	22:DA:928:A:C2	2.87	0.42
22:DA:946:C:O2'	22:DA:947:A:O5'	2.38	0.42
22:DA:971:G:H2'	22:DA:972:A:C5'	2.46	0.42
22:DA:1062:G:O2'	22:DA:1063:G:H8	2.01	0.42
22:DA:1103:A:H3'	22:DA:1104:C:C6	2.54	0.42
22:DA:1167:C:C2'	22:DA:1168:G:H5'	2.49	0.42
22:DA:1255:U:O2'	22:DA:1256:G:OP1	2.35	0.42
22:DA:1265:A:C4	22:DA:1267:U:C4	3.08	0.42
22:DA:1270:C:H5''	22:DA:1271:G:OP1	2.19	0.42
22:DA:1303:G:O2'	22:DA:1304:A:C5'	2.67	0.42
22:DA:1398:C:O2'	22:DA:1399:C:H6	2.01	0.42
22:DA:1901:A:OP2	22:DA:1901:A:H4'	2.18	0.42
22:DA:2205:A:O2'	22:DA:2206:C:H5'	2.19	0.42
22:DA:2288:A:H4'	22:DA:2289:G:OP2	2.14	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2349:G:OP1	51:D3:44:ARG:NH2	2.52	0.42
22:DA:2547:A:C8	22:DA:2566:A:C8	3.07	0.42
22:DA:2557:G:C6	22:DA:2558:C:N4	2.87	0.42
22:DA:2652:C:N4	22:DA:2653:U:C4	2.87	0.42
22:DA:2654:A:N6	22:DA:2667:C:N4	2.67	0.42
22:DA:2714:G:C4	22:DA:2715:C:C6	3.06	0.42
22:DA:2841:C:H2'	22:DA:2842:G:C8	2.54	0.42
22:DA:2882:A:P	35:DN:96:ARG:HD3	2.59	0.42
57:DB:19:C:H2'	57:DB:20:G:C8	2.53	0.42
25:DD:109:VAL:HB	25:DD:175:LEU:HD12	2.01	0.42
26:DE:46:GLN:CB	26:DE:86:ALA:HB1	2.48	0.42
31:DJ:8:PRO:CG	31:DJ:9:GLU:H	2.25	0.42
31:DJ:44:TYR:O	31:DJ:44:TYR:HD2	2.02	0.42
32:DK:113:MET:HA	32:DK:116:ILE:HD11	2.01	0.42
33:DL:112:LEU:HD23	33:DL:112:LEU:H	1.84	0.42
37:DP:54:LEU:O	37:DP:54:LEU:HG	2.18	0.42
38:DQ:12:ARG:HD2	38:DQ:12:ARG:H	1.83	0.42
40:DS:43:ALA:O	40:DS:44:ALA:C	2.62	0.42
41:DT:55:VAL:HG23	41:DT:86:THR:O	2.19	0.42
1:AA:199:A:C2	1:AA:200:G:C8	3.08	0.42
1:AA:466:A:C6	1:AA:468:A:N6	2.87	0.42
1:AA:1012:A:C6	1:AA:1013:G:C6	3.08	0.42
1:AA:1111:A:H2'	1:AA:1112:C:H5'	2.01	0.42
1:AA:1336:C:H4'	1:AA:1337:G:H5'	2.01	0.42
2:AB:22:TRP:HA	2:AB:189:ASN:HA	2.01	0.42
2:AB:128:LEU:O	2:AB:129:THR:HG23	2.20	0.42
3:AC:107:LYS:HA	3:AC:108:PRO:HD2	1.75	0.42
7:AG:21:LEU:HD23	7:AG:21:LEU:HA	1.74	0.42
11:AK:21:HIS:CD2	11:AK:34:THR:HG21	2.55	0.42
15:AO:34:GLN:O	15:AO:35:ILE:C	2.63	0.42
18:AR:44:THR:C	18:AR:46:THR:H	2.27	0.42
18:AR:67:LEU:HA	18:AR:68:PRO:HD3	1.88	0.42
22:BA:28:A:C4	22:BA:29:U:C6	3.07	0.42
22:BA:92:U:H2'	22:BA:93:G:C8	2.54	0.42
22:BA:137:U:OP2	22:BA:137:U:H5	2.01	0.42
22:BA:573:U:O3'	22:BA:574:A:H3'	2.19	0.42
22:BA:633:A:OP1	33:BL:68:SER:OG	2.34	0.42
22:BA:672:C:H4'	26:BE:84:THR:CG2	2.50	0.42
22:BA:866:A:C2'	22:BA:867:C:H5'	2.48	0.42
22:BA:1062:G:N9	22:BA:1088:A:N7	2.67	0.42
22:BA:1151:A:H8	22:BA:1151:A:C5'	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1179:G:N1	22:BA:1180:U:O2'	2.50	0.42
22:BA:1239:G:H2'	22:BA:1240:U:O4'	2.20	0.42
22:BA:2032:G:O6	22:BA:2453:A:O2'	2.35	0.42
22:BA:2092:U:C4'	22:BA:2093:G:O5'	2.66	0.42
22:BA:2238:G:H5'	22:BA:2239:G:OP1	2.19	0.42
22:BA:2321:U:H5''	22:BA:2321:U:C6	2.42	0.42
22:BA:2572:A:O5'	22:BA:2574:G:H4'	2.19	0.42
22:BA:2633:G:H2'	22:BA:2634:A:O4'	2.19	0.42
22:BA:2692:G:H4'	22:BA:2870:C:O2	2.19	0.42
22:BA:2726:A:O2'	22:BA:2727:A:C5'	2.68	0.42
22:BA:2727:A:O2'	22:BA:2728:U:H5'	2.20	0.42
22:BA:2823:A:O2'	22:BA:2824:C:H5'	2.20	0.42
24:BC:147:PRO:HD3	24:BC:187:CYS:SG	2.60	0.42
25:BD:85:ALA:O	25:BD:86:GLU:CB	2.68	0.42
25:BD:139:SER:HA	25:BD:142:VAL:HG11	2.00	0.42
26:BE:119:ILE:HD13	26:BE:119:ILE:O	2.18	0.42
27:BF:100:GLU:C	27:BF:102:LEU:H	2.27	0.42
29:BH:62:LEU:HD12	29:BH:63:ALA:CA	2.49	0.42
29:BH:78:VAL:HG23	29:BH:78:VAL:O	2.19	0.42
30:BI:49:GLU:C	30:BI:50:LYS:HD3	2.44	0.42
31:BJ:78:THR:OG1	31:BJ:80:HIS:HB2	2.19	0.42
31:BJ:105:VAL:HG23	31:BJ:109:LEU:HD11	2.01	0.42
32:BK:18:ARG:NH1	32:BK:18:ARG:CG	2.63	0.42
32:BK:47:ILE:HD12	32:BK:47:ILE:HA	1.73	0.42
33:BL:113:ALA:O	33:BL:114:GLY:O	2.37	0.42
35:BN:4:ARG:HD2	35:BN:4:ARG:HA	1.75	0.42
38:BQ:13:HIS:CD2	38:BQ:31:TYR:CE1	3.05	0.42
38:BQ:35:PHE:O	38:BQ:36:GLN:C	2.62	0.42
40:BS:24:ILE:HG13	40:BS:36:LEU:HD22	2.02	0.42
43:BV:30:ILE:O	43:BV:37:PRO:HA	2.19	0.42
44:BW:67:LYS:HE2	44:BW:67:LYS:CA	2.49	0.42
45:BX:29:LEU:HB2	45:BX:30:PRO:CD	2.50	0.42
53:CA:369:G:OP2	53:CA:388:G:C2	2.72	0.42
53:CA:374:A:C5'	53:CA:452:A:N1	2.68	0.42
53:CA:584:G:H2'	53:CA:585:G:C8	2.54	0.42
53:CA:837:U:H2'	53:CA:838:G:H8	1.83	0.42
53:CA:934:C:C5	53:CA:1344:C:N3	2.88	0.42
53:CA:1078:U:C5	53:CA:1079:G:C5	3.07	0.42
53:CA:1130:A:C5	53:CA:1146:A:C5	3.07	0.42
53:CA:1226:C:H5	55:CM:102:LYS:HA	1.84	0.42
2:CB:49:PHE:HA	2:CB:52:ALA:CB	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:CB:67:LEU:HG	2:CB:157:PRO:HB3	2.02	0.42
3:CC:148:ILE:HD12	3:CC:149:LYS:N	2.35	0.42
5:CE:153:ALA:O	5:CE:156:ARG:HG2	2.20	0.42
6:CF:47:LEU:HB2	6:CF:55:HIS:O	2.20	0.42
54:CG:4:ARG:CZ	54:CG:6:ILE:CG2	2.98	0.42
8:CH:33:VAL:C	8:CH:35:ILE:N	2.77	0.42
9:CI:11:ARG:O	9:CI:12:LYS:HB3	2.19	0.42
9:CI:29:ILE:HG13	9:CI:64:ILE:HG22	2.02	0.42
14:CN:41:TRP:HE3	14:CN:42:ASN:N	2.17	0.42
14:CN:61:ASN:HB2	14:CN:72:PHE:CZ	2.55	0.42
19:CS:62:THR:HG21	19:CS:64:GLU:HG3	2.02	0.42
20:CT:9:ARG:HD3	20:CT:12:GLN:NE2	2.33	0.42
20:CT:78:LEU:O	20:CT:82:ILE:HD11	2.19	0.42
22:DA:2:G:C5	22:DA:3:U:C4	3.07	0.42
22:DA:50:U:H6	22:DA:50:U:OP1	2.02	0.42
22:DA:70:G:H8	22:DA:70:G:OP2	2.03	0.42
22:DA:82:U:C2	22:DA:83:A:C8	3.07	0.42
22:DA:126:A:OP2	50:D2:19:ARG:HB2	2.20	0.42
22:DA:373:U:C2	22:DA:374:A:N7	2.88	0.42
22:DA:379:G:C6	22:DA:380:G:N7	2.87	0.42
22:DA:492:A:N6	40:DS:49:LYS:HD2	2.34	0.42
22:DA:664:G:C4'	22:DA:941:A:OP1	2.55	0.42
22:DA:779:U:H5''	24:DC:42:ARG:HH21	1.84	0.42
22:DA:841:G:H2'	22:DA:842:U:O4'	2.20	0.42
22:DA:959:A:H2'	22:DA:960:A:H8	1.71	0.42
22:DA:989:G:OP2	47:DZ:11:SER:HB2	2.18	0.42
22:DA:1011:G:H4'	22:DA:1012:U:OP1	2.19	0.42
22:DA:1034:G:C6	22:DA:1122:G:C6	3.07	0.42
22:DA:1063:G:C2	22:DA:1064:C:N3	2.87	0.42
22:DA:1262:A:C2	48:D0:6:LYS:HD2	2.51	0.42
22:DA:1385:A:O2'	22:DA:1386:C:H5''	2.19	0.42
22:DA:1417:C:C4'	22:DA:1587:G:H21	2.25	0.42
22:DA:2024:G:N1	22:DA:2040:G:C4	2.87	0.42
22:DA:2107:G:C2	22:DA:2108:A:C5	3.06	0.42
24:DC:175:LEU:HD12	24:DC:179:GLU:HB3	2.00	0.42
25:DD:45:TYR:CE2	25:DD:47:ALA:HB3	2.54	0.42
28:DG:25:ILE:HG22	28:DG:78:VAL:HG11	2.00	0.42
28:DG:60:GLY:O	28:DG:61:TRP:HB2	2.19	0.42
29:DH:45:GLU:C	29:DH:47:PHE:N	2.77	0.42
34:DM:71:LYS:HA	34:DM:72:PRO:HD3	1.78	0.42
34:DM:81:ARG:NH2	34:DM:84:LYS:CE	2.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:DP:50:ARG:H	37:DP:50:ARG:HG3	1.47	0.42
38:DQ:4:LYS:O	38:DQ:5:ARG:CB	2.66	0.42
41:DT:19:LYS:CE	41:DT:23:ALA:HB3	2.45	0.42
41:DT:68:LYS:NZ	41:DT:68:LYS:HB2	2.35	0.42
42:DU:21:ARG:H	42:DU:21:ARG:HG2	1.61	0.42
44:DW:11:ASN:OD1	44:DW:11:ASN:O	2.37	0.42
45:DX:24:THR:O	45:DX:25:LYS:C	2.63	0.42
50:D2:19:ARG:HH21	50:D2:19:ARG:CB	2.26	0.42
1:AA:188:C:O2	1:AA:188:C:C2'	2.65	0.42
1:AA:198:G:H2'	1:AA:199:A:C8	2.54	0.42
1:AA:242:G:C2	1:AA:245:U:C4	3.07	0.42
1:AA:370:C:H2'	1:AA:371:A:H5'	2.00	0.42
1:AA:468:A:C2'	1:AA:469:C:H5'	2.49	0.42
1:AA:511:C:H2'	1:AA:534:U:O2	2.19	0.42
1:AA:1239:A:H5'	1:AA:1240:U:OP1	2.19	0.42
1:AA:1282:C:O2'	1:AA:1283:U:O5'	2.38	0.42
2:AB:67:LEU:O	2:AB:160:LEU:HD12	2.20	0.42
3:AC:6:PRO:CG	3:AC:183:TYR:CD2	3.03	0.42
4:AD:131:ILE:HD13	4:AD:134:TYR:HB2	2.02	0.42
5:AE:71:ILE:HG12	5:AE:72:ASN:H	1.85	0.42
7:AG:108:ARG:HH21	7:AG:118:ARG:HH12	1.68	0.42
9:AI:79:ARG:HD2	9:AI:79:ARG:C	2.44	0.42
11:AK:111:ASP:CB	21:AU:19:LYS:CD	2.98	0.42
22:BA:73:A:H8	22:BA:73:A:O5'	2.03	0.42
22:BA:163:C:O2'	22:BA:164:C:C5'	2.67	0.42
22:BA:295:G:N1	22:BA:296:U:C5	2.88	0.42
22:BA:480:A:C2'	22:BA:481:G:OP1	2.68	0.42
22:BA:747:U:C4	22:BA:2613:U:C6	3.08	0.42
22:BA:817:C:C2'	22:BA:818:G:C5'	2.92	0.42
22:BA:876:C:O2'	22:BA:877:A:C5'	2.67	0.42
22:BA:954:G:C5	22:BA:955:U:C5	3.07	0.42
22:BA:960:A:C4'	22:BA:2457:U:H4'	2.49	0.42
22:BA:971:G:C6	22:BA:972:A:C4	3.07	0.42
22:BA:1042:G:H2'	22:BA:1043:C:H5'	2.01	0.42
22:BA:1062:G:C5	22:BA:1063:G:C6	3.08	0.42
22:BA:1277:G:C5'	35:BN:20:MET:HE2	2.49	0.42
22:BA:1385:A:C2	22:BA:1386:C:C2	3.08	0.42
22:BA:1562:U:H2'	22:BA:1563:U:O4'	2.19	0.42
22:BA:1603:A:H2'	22:BA:1604:C:H6	1.83	0.42
22:BA:1633:G:C6	22:BA:1635:A:C5	3.08	0.42
22:BA:1682:G:C4	22:BA:1683:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1731:G:C5	22:BA:1733:G:N7	2.88	0.42
22:BA:1736:U:C2'	22:BA:1737:G:O5'	2.67	0.42
22:BA:2080:A:C5'	45:BX:18:SER:HB2	2.49	0.42
22:BA:2081:U:H2'	22:BA:2082:A:C8	2.54	0.42
22:BA:2091:C:O2	45:BX:33:HIS:CE1	2.73	0.42
22:BA:2518:A:P	62:BA:3531:HOH:O	2.78	0.42
22:BA:2901:C:H2'	22:BA:2902:C:H5'	2.02	0.42
24:BC:20:ASN:HD22	24:BC:21:PRO:N	2.17	0.42
25:BD:112:THR:O	25:BD:195:GLY:HA2	2.19	0.42
26:BE:5:LEU:O	26:BE:6:LYS:C	2.63	0.42
26:BE:101:TYR:CE2	26:BE:105:LEU:CD1	3.02	0.42
26:BE:169:VAL:O	26:BE:170:ARG:HD2	2.20	0.42
27:BF:134:GLN:HG2	27:BF:135:ILE:H	1.83	0.42
31:BJ:58:ASN:N	31:BJ:127:GLY:O	2.49	0.42
32:BK:47:ILE:CG1	32:BK:48:PRO:HD2	2.43	0.42
33:BL:68:SER:HB3	33:BL:71:ALA:CB	2.49	0.42
34:BM:5:LYS:HB3	34:BM:5:LYS:HZ3	1.78	0.42
34:BM:117:PHE:O	34:BM:118:LYS:C	2.62	0.42
35:BN:98:LEU:HB2	35:BN:112:TYR:HB2	2.02	0.42
38:BQ:85:ALA:HA	38:BQ:115:ALA:CB	2.49	0.42
39:BR:9:GLY:C	39:BR:10:LYS:CD	2.93	0.42
40:BS:50:VAL:O	40:BS:51:LEU:C	2.61	0.42
41:BT:48:GLN:CB	41:BT:49:LYS:HE3	2.49	0.42
44:BW:72:GLY:N	44:BW:73:PRO:CD	2.80	0.42
46:BY:44:LYS:C	46:BY:45:GLN:O	2.59	0.42
47:BZ:19:HIS:O	47:BZ:22:THR:HB	2.18	0.42
49:B1:6:GLU:OE1	49:B1:52:LYS:HD2	2.19	0.42
51:B3:49:VAL:HG23	51:B3:53:ASP:HB2	2.01	0.42
53:CA:27:G:C5	53:CA:557:G:N2	2.88	0.42
53:CA:58:C:O5'	53:CA:58:C:H6	2.01	0.42
53:CA:174:A:N3	53:CA:175:C:C6	2.87	0.42
53:CA:248:C:O2'	53:CA:249:U:O5'	2.37	0.42
53:CA:252:U:O4	53:CA:253:A:N6	2.52	0.42
53:CA:563:A:N3	53:CA:563:A:C2'	2.79	0.42
53:CA:1235:U:H2'	53:CA:1236:A:O4'	2.19	0.42
53:CA:1444:U:H1'	53:CA:1459:G:N2	2.34	0.42
2:CB:111:LYS:HD3	2:CB:111:LYS:C	2.45	0.42
2:CB:116:LEU:HB2	2:CB:140:LEU:HD13	2.01	0.42
3:CC:17:TRP:CD1	14:CN:90:GLY:HA2	2.54	0.42
4:CD:78:ALA:HA	4:CD:88:ASN:HB3	2.00	0.42
4:CD:141:VAL:HA	4:CD:180:THR:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:176:LYS:O	4:CD:177:MET:HB2	2.20	0.42
5:CE:82:HIS:CE1	8:CH:95:MET:CE	2.93	0.42
6:CF:72:ASP:HA	6:CF:75:GLU:HB2	2.00	0.42
8:CH:17:GLN:CD	8:CH:69:ALA:HB1	2.45	0.42
10:CJ:59:LYS:H	10:CJ:59:LYS:HG3	1.67	0.42
22:DA:20:C:H2'	22:DA:21:A:H8	1.83	0.42
22:DA:141:G:C3'	22:DA:142:A:O4'	2.57	0.42
22:DA:241:A:C4'	22:DA:242:G:OP1	2.60	0.42
22:DA:308:G:N1	22:DA:309:A:N1	2.68	0.42
22:DA:310:A:O2'	22:DA:311:A:C5'	2.67	0.42
22:DA:475:C:O2'	22:DA:476:G:C8	2.68	0.42
22:DA:628:G:O5'	22:DA:628:G:H8	2.02	0.42
22:DA:730:A:O2'	22:DA:731:C:H5'	2.19	0.42
22:DA:996:A:C2	22:DA:997:G:C8	3.07	0.42
22:DA:1018:U:H5''	22:DA:1036:G:O2'	2.19	0.42
22:DA:1161:C:H2'	22:DA:1162:G:H8	1.84	0.42
22:DA:1420:A:C2	22:DA:2211:A:N7	2.88	0.42
22:DA:1529:G:O6	22:DA:1543:G:C2	2.72	0.42
22:DA:1613:G:H2'	22:DA:1617:C:N4	2.34	0.42
22:DA:1808:A:N6	45:DX:27:ARG:HD2	2.35	0.42
22:DA:1968:G:H4'	22:DA:1973:G:H5''	2.01	0.42
22:DA:2210:U:O2	22:DA:2212:A:H5''	2.19	0.42
22:DA:2244:U:C5	22:DA:2245:U:C4	3.08	0.42
22:DA:2331:G:C2	22:DA:2385:C:C4	3.07	0.42
22:DA:2595:G:C6	22:DA:2599:G:C6	3.07	0.42
22:DA:2703:C:H2'	22:DA:2704:C:C6	2.54	0.42
22:DA:2836:U:O2'	22:DA:2837:A:C8	2.73	0.42
57:DB:76:G:C6	57:DB:77:U:C4	3.08	0.42
57:DB:96:G:O2'	57:DB:97:C:H5'	2.20	0.42
24:DC:94:LEU:HA	24:DC:100:ARG:CG	2.46	0.42
25:DD:19:GLY:O	32:DK:72:PRO:CB	2.67	0.42
26:DE:28:VAL:HG23	26:DE:29:HIS:N	2.35	0.42
58:DF:14:LYS:NZ	58:DF:18:GLU:HG3	2.34	0.42
28:DG:162:ARG:C	28:DG:163:TYR:CD2	2.95	0.42
31:DJ:25:LEU:C	31:DJ:27:ARG:N	2.78	0.42
31:DJ:35:ARG:CG	31:DJ:40:HIS:CD2	2.91	0.42
37:DP:109:ILE:O	37:DP:110:LYS:CG	2.61	0.42
39:DR:38:VAL:O	39:DR:53:PHE:HA	2.20	0.42
39:DR:52:PRO:O	39:DR:53:PHE:CD2	2.72	0.42
45:DX:69:GLU:O	45:DX:70:LEU:CB	2.67	0.42
46:DY:28:LEU:HG	46:DY:42:LEU:CD2	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DZ:4:ILE:CG2	47:DZ:56:VAL:CG1	2.98	0.42
49:D1:38:PHE:CG	49:D1:39:ASP:N	2.88	0.42
1:AA:401:C:H3'	1:AA:401:C:C6	2.54	0.42
1:AA:468:A:C2	1:AA:469:C:N4	2.87	0.42
1:AA:486:U:H6	1:AA:486:U:C5'	2.29	0.42
1:AA:660:C:H2'	1:AA:661:G:O4'	2.19	0.42
1:AA:844:G:N2	1:AA:845:A:H62	2.17	0.42
1:AA:1055:A:O3'	3:AC:160:GLU:O	2.38	0.42
1:AA:1140:C:HO2'	1:AA:1141:C:H6	1.67	0.42
1:AA:1377:A:O2'	7:AG:1:PRO:HB3	2.20	0.42
3:AC:21:TRP:CD1	3:AC:58:ARG:HD3	2.55	0.42
3:AC:143:LEU:N	3:AC:143:LEU:CD2	2.72	0.42
4:AD:93:LEU:HD23	4:AD:93:LEU:HA	1.76	0.42
4:AD:190:LEU:HD12	4:AD:190:LEU:C	2.45	0.42
6:AF:46:GLN:HE21	6:AF:56:LYS:HG3	1.84	0.42
6:AF:72:ASP:O	6:AF:73:GLU:C	2.63	0.42
9:AI:40:ARG:HA	9:AI:44:ARG:CB	2.24	0.42
10:AJ:49:PHE:CZ	14:AN:75:LYS:HG2	2.55	0.42
11:AK:117:HIS:O	11:AK:118:ASN:HB2	2.18	0.42
16:AP:19:VAL:HG13	16:AP:37:GLY:O	2.17	0.42
18:AR:33:THR:HG23	18:AR:37:LYS:N	2.30	0.42
19:AS:28:LYS:CB	19:AS:29:PRO:HD2	2.24	0.42
22:BA:80:G:N3	22:BA:107:G:C2	2.88	0.42
22:BA:604:G:H5''	22:BA:604:G:H8	1.85	0.42
22:BA:665:U:O2'	22:BA:666:A:H5'	2.20	0.42
22:BA:715:A:N6	22:BA:716:A:N1	2.66	0.42
22:BA:807:U:H2'	22:BA:808:G:H8	1.85	0.42
22:BA:935:C:O2'	22:BA:936:A:H5'	2.18	0.42
22:BA:955:U:OP2	34:BM:13:HIS:O	2.37	0.42
22:BA:1050:A:C2	22:BA:2751:G:C8	3.08	0.42
22:BA:1283:G:H1'	22:BA:1329:U:O2	2.20	0.42
22:BA:1409:U:H2'	22:BA:1410:G:O4'	2.19	0.42
22:BA:1507:C:H5'	22:BA:1508:A:OP2	2.19	0.42
22:BA:1564:C:H2'	22:BA:1565:C:C6	2.55	0.42
22:BA:1663:G:N2	22:BA:1998:A:C4	2.88	0.42
22:BA:1724:G:H2'	22:BA:1725:U:H5'	2.02	0.42
22:BA:1795:C:H2'	22:BA:1796:U:C6	2.54	0.42
22:BA:2186:G:C6	22:BA:2187:U:C2	3.08	0.42
22:BA:2195:U:H2'	22:BA:2196:C:C6	2.46	0.42
22:BA:2199:A:C5'	22:BA:2200:C:H5	2.31	0.42
22:BA:2400:G:H2'	22:BA:2401:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2521:C:C2'	22:BA:2522:U:H5'	2.50	0.42
22:BA:2536:G:C6	22:BA:2537:U:C4	3.08	0.42
23:BB:28:C:C2'	23:BB:29:A:C5'	2.89	0.42
23:BB:94:A:C2'	23:BB:95:U:H5'	2.49	0.42
25:BD:177:VAL:HG12	25:BD:187:LEU:HD11	2.01	0.42
26:BE:96:VAL:O	26:BE:96:VAL:HG12	2.19	0.42
28:BG:1:SER:O	28:BG:3:VAL:N	2.52	0.42
28:BG:132:LEU:HD13	28:BG:143:VAL:HG12	2.02	0.42
28:BG:174:LYS:HD2	28:BG:174:LYS:O	2.19	0.42
30:BI:49:GLU:HG2	30:BI:50:LYS:H	1.83	0.42
31:BJ:73:VAL:HB	31:BJ:75:TYR:CD2	2.54	0.42
31:BJ:111:LYS:HE2	31:BJ:115:GLY:N	2.21	0.42
31:BJ:141:ASP:HB3	31:BJ:142:ILE:H	1.57	0.42
35:BN:10:LEU:O	35:BN:11:ASN:C	2.62	0.42
35:BN:13:ASN:O	35:BN:14:SER:C	2.62	0.42
35:BN:79:LEU:O	35:BN:80:PHE:CB	2.61	0.42
35:BN:95:THR:CG2	35:BN:96:ARG:N	2.82	0.42
36:BO:2:ASP:OD1	36:BO:2:ASP:C	2.63	0.42
37:BP:57:ALA:HA	37:BP:75:THR:HG23	2.01	0.42
38:BQ:40:LYS:HB2	38:BQ:40:LYS:HZ2	1.77	0.42
40:BS:31:GLN:O	40:BS:32:ALA:C	2.61	0.42
43:BV:51:GLN:NE2	43:BV:57:TYR:OH	2.51	0.42
43:BV:66:ASP:OD1	43:BV:66:ASP:C	2.61	0.42
47:BZ:38:GLU:O	47:BZ:43:ILE:HG12	2.19	0.42
53:CA:16:A:H2'	53:CA:17:U:H5'	2.02	0.42
53:CA:178:C:C4	53:CA:179:A:N7	2.88	0.42
53:CA:309:A:O2'	53:CA:607:A:N1	2.38	0.42
53:CA:347:G:H2'	53:CA:348:G:H8	1.85	0.42
53:CA:376:G:H5''	56:CP:5:ARG:HD2	2.00	0.42
53:CA:444:G:C6	53:CA:445:G:N7	2.88	0.42
53:CA:517:G:H5'	53:CA:519:C:N3	2.33	0.42
53:CA:1195:C:H5''	53:CA:1196:A:OP2	2.19	0.42
53:CA:1357:A:C5	53:CA:1358:U:C4	3.08	0.42
53:CA:1391:U:H2'	53:CA:1392:G:C8	2.55	0.42
2:CB:9:LEU:HB2	2:CB:11:ALA:HB3	2.01	0.42
4:CD:109:THR:CG2	4:CD:110:ARG:N	2.82	0.42
5:CE:11:GLN:HG3	5:CE:40:ASP:O	2.19	0.42
5:CE:118:GLY:O	5:CE:119:VAL:HG13	2.19	0.42
6:CF:15:SER:OG	6:CF:58:HIS:CD2	2.73	0.42
6:CF:97:THR:C	6:CF:98:GLU:HG3	2.43	0.42
54:CG:37:THR:HA	54:CG:40:SER:OG	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:31:LEU:O	8:CH:35:ILE:HG13	2.19	0.42
11:CK:28:ASN:CG	11:CK:56:LYS:HE2	2.44	0.42
12:CL:51:VAL:CG1	12:CL:52:CYS:N	2.82	0.42
55:CM:78:ARG:HE	55:CM:79:LEU:HD23	1.84	0.42
19:CS:22:VAL:HG12	19:CS:23:GLU:CD	2.44	0.42
19:CS:36:ARG:O	19:CS:36:ARG:HG2	2.18	0.42
20:CT:59:ARG:C	20:CT:61:ALA:H	2.27	0.42
22:DA:142:A:H2'	22:DA:143:C:C5	2.52	0.42
22:DA:410:G:C6	22:DA:2407:A:N6	2.87	0.42
22:DA:416:U:H2'	22:DA:417:C:C6	2.55	0.42
22:DA:564:C:H2'	22:DA:565:C:C5'	2.48	0.42
22:DA:573:U:N3	22:DA:2030:A:H3'	2.35	0.42
22:DA:730:A:O2'	22:DA:731:C:C5'	2.67	0.42
22:DA:743:A:OP1	25:DD:135:GLY:HA2	2.20	0.42
22:DA:784:G:OP1	22:DA:2588:G:H5''	2.20	0.42
22:DA:848:C:H2'	22:DA:849:A:C8	2.54	0.42
22:DA:1050:A:O2'	22:DA:1051:G:O5'	2.37	0.42
22:DA:1102:C:H2'	22:DA:1103:A:C8	2.53	0.42
22:DA:1206:G:C6	22:DA:1207:C:C4	3.08	0.42
22:DA:1352:U:C6	22:DA:1377:G:O6	2.72	0.42
22:DA:1515:A:H5'	22:DA:1557:C:H5'	2.01	0.42
22:DA:1628:G:H2'	22:DA:1629:U:H6	1.84	0.42
22:DA:1653:G:O6	35:DN:10:LEU:O	2.37	0.42
22:DA:1665:A:C6	22:DA:1666:G:C5	3.08	0.42
22:DA:1793:C:H2'	22:DA:1794:A:O4'	2.19	0.42
22:DA:1931:U:C2	22:DA:1932:A:C8	3.08	0.42
22:DA:2036:C:O2'	22:DA:2037:A:C8	2.69	0.42
22:DA:2043:C:C2	22:DA:2044:C:C5	3.07	0.42
22:DA:2209:G:C6	22:DA:2210:U:C4	3.08	0.42
22:DA:2258:C:O2'	22:DA:2427:C:OP2	2.38	0.42
22:DA:2526:G:C5	22:DA:2527:C:C5	3.08	0.42
22:DA:2604:U:H2'	22:DA:2605:U:C6	2.54	0.42
22:DA:2694:G:H2'	22:DA:2695:U:C6	2.50	0.42
22:DA:2824:C:OP2	22:DA:2825:G:N2	2.51	0.42
57:DB:7:G:O2'	36:DO:27:VAL:HG11	2.19	0.42
57:DB:25:U:C2'	57:DB:26:C:H5'	2.50	0.42
25:DD:16:THR:HG22	25:DD:20:VAL:CB	2.44	0.42
26:DE:148:ILE:HB	26:DE:168:ASP:O	2.19	0.42
26:DE:165:HIS:C	26:DE:167:VAL:H	2.28	0.42
26:DE:170:ARG:CZ	26:DE:176:ASP:OD2	2.67	0.42
26:DE:195:GLN:O	26:DE:199:MET:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:13:ALA:C	30:DI:15:GLY:H	2.27	0.42
32:DK:13:ASN:ND2	32:DK:96:GLY:HA3	2.35	0.42
33:DL:112:LEU:CD2	33:DL:112:LEU:N	2.82	0.42
33:DL:120:VAL:CG1	33:DL:121:THR:N	2.80	0.42
33:DL:124:GLY:N	33:DL:143:GLU:OE2	2.52	0.42
34:DM:31:PHE:CE2	34:DM:110:GLU:HB3	2.54	0.42
35:DN:79:LEU:O	35:DN:81:ASN:N	2.50	0.42
35:DN:87:PHE:HD1	35:DN:90:ARG:HD2	1.85	0.42
41:DT:14:PRO:O	41:DT:15:HIS:CB	2.54	0.42
41:DT:29:THR:H	41:DT:87:LEU:HB3	1.79	0.42
46:DY:37:LEU:HD13	46:DY:42:LEU:HD12	2.01	0.42
52:D4:9:LYS:CB	52:D4:14:CYS:HB2	2.50	0.42
1:AA:57:G:N1	1:AA:356:A:C2	2.88	0.42
1:AA:408:A:C2	1:AA:435:A:C2	3.07	0.42
1:AA:439:U:H1'	4:AD:118:SER:O	2.20	0.42
1:AA:671:G:C2	1:AA:736:C:C2	3.07	0.42
1:AA:764:C:H2'	1:AA:765:G:C5'	2.50	0.42
1:AA:830:G:O2'	1:AA:831:A:H5'	2.18	0.42
1:AA:842:U:HO2'	1:AA:846:G:H1	1.66	0.42
1:AA:1080:A:OP1	5:AE:51:LYS:CE	2.67	0.42
1:AA:1080:A:O3'	5:AE:20:VAL:HG21	2.20	0.42
1:AA:1081:A:H2'	1:AA:1082:A:H5'	2.01	0.42
1:AA:1152:A:O2'	1:AA:1153:G:O4'	2.36	0.42
1:AA:1202:U:H2'	1:AA:1203:C:H6	1.77	0.42
2:AB:138:ARG:HB2	2:AB:138:ARG:HH11	1.85	0.42
4:AD:88:ASN:OD1	4:AD:88:ASN:N	2.53	0.42
4:AD:124:VAL:O	4:AD:126:GLY:N	2.44	0.42
4:AD:193:ASP:OD1	4:AD:193:ASP:N	2.53	0.42
5:AE:96:GLN:HB2	5:AE:123:LEU:CD1	2.49	0.42
5:AE:155:LYS:C	5:AE:156:ARG:O	2.63	0.42
6:AF:1:MET:SD	6:AF:67:PRO:HD3	2.59	0.42
6:AF:91:ARG:HG3	6:AF:92:THR:N	2.29	0.42
7:AG:21:LEU:HD23	7:AG:24:LYS:HD2	2.01	0.42
10:AJ:12:ALA:O	10:AJ:70:HIS:HD2	2.02	0.42
12:AL:23:LEU:C	12:AL:25:ALA:N	2.77	0.42
13:AM:84:CYS:O	13:AM:88:LEU:CD1	2.68	0.42
15:AO:3:SER:O	15:AO:4:THR:C	2.62	0.42
15:AO:63:ARG:NH1	15:AO:67:ASP:OD1	2.41	0.42
16:AP:67:ILE:HG21	16:AP:72:ALA:HB2	2.02	0.42
17:AQ:14:ASP:HA	17:AQ:20:ILE:HD11	2.01	0.42
22:BA:245:G:C5	22:BA:246:C:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:532:A:O2'	22:BA:2021:C:H5	2.02	0.42
22:BA:580:U:O3'	38:BQ:30:VAL:HG11	2.18	0.42
22:BA:648:G:O2'	22:BA:2351:G:OP1	2.19	0.42
22:BA:1593:A:H2'	22:BA:1594:U:O4'	2.19	0.42
22:BA:1681:G:O2'	22:BA:1762:A:O2'	2.30	0.42
22:BA:1798:U:P	24:BC:255:LYS:O	2.78	0.42
22:BA:1932:A:C2	22:BA:1969:A:C5	3.08	0.42
22:BA:2024:G:H4'	25:BD:154:LYS:NZ	2.35	0.42
22:BA:2405:G:O2'	22:BA:2411:A:N6	2.53	0.42
22:BA:2536:G:C5	22:BA:2537:U:C4	3.07	0.42
22:BA:2583:G:C6	22:BA:2584:U:C2	3.07	0.42
22:BA:2681:C:C2	22:BA:2724:U:O4	2.73	0.42
25:BD:100:LEU:HD23	25:BD:101:PHE:HE1	1.84	0.42
25:BD:110:THR:HA	25:BD:171:THR:HA	2.02	0.42
25:BD:117:GLY:C	25:BD:118:PHE:CD1	2.98	0.42
28:BG:32:LEU:O	28:BG:33:THR:HG23	2.19	0.42
32:BK:42:THR:O	32:BK:42:THR:HG23	2.19	0.42
32:BK:88:ASN:HD22	32:BK:90:ASN:N	2.17	0.42
32:BK:118:LEU:HD12	32:BK:118:LEU:N	2.33	0.42
33:BL:78:ARG:HB2	33:BL:80:SER:OG	2.19	0.42
36:BO:31:THR:O	36:BO:102:ARG:NH1	2.53	0.42
37:BP:30:TRP:CH2	37:BP:39:LEU:CD1	3.03	0.42
38:BQ:8:ILE:CD1	38:BQ:9:ALA:N	2.69	0.42
38:BQ:40:LYS:NZ	38:BQ:40:LYS:CB	2.69	0.42
40:BS:24:ILE:HD12	40:BS:32:ALA:CB	2.50	0.42
48:B0:35:GLU:OE1	48:B0:45:ASP:HB2	2.20	0.42
53:CA:115:G:H4'	53:CA:116:A:OP1	2.18	0.42
53:CA:284:C:H2'	53:CA:285:C:C6	2.54	0.42
53:CA:300:A:H2'	53:CA:301:G:C5'	2.50	0.42
53:CA:414:A:N6	53:CA:431:A:N3	2.68	0.42
53:CA:667:G:H4'	15:CO:50:HIS:CG	2.54	0.42
53:CA:687:A:N1	53:CA:704:A:N7	2.68	0.42
53:CA:787:A:C2	53:CA:796:C:C2	3.07	0.42
53:CA:794:A:O2'	53:CA:795:C:C5'	2.67	0.42
53:CA:799:G:C6	53:CA:800:G:C4	3.07	0.42
53:CA:1010:U:C2	53:CA:1020:G:N2	2.87	0.42
53:CA:1028:C:C2	53:CA:1034:G:N2	2.88	0.42
53:CA:1085:U:H4'	53:CA:1086:U:OP1	2.19	0.42
53:CA:1118:U:H5'	9:CI:10:ARG:HH21	1.85	0.42
53:CA:1157:A:C5	53:CA:1180:A:C6	3.08	0.42
53:CA:1309:G:H1'	55:CM:72:ILE:CD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1463:U:H2'	53:CA:1464:U:C6	2.55	0.42
2:CB:10:LYS:HA	2:CB:10:LYS:CE	2.49	0.42
2:CB:86:CYS:HB3	2:CB:220:VAL:HG12	2.01	0.42
2:CB:169:HIS:HD2	2:CB:173:LYS:HZ1	1.66	0.42
3:CC:25:THR:HG22	3:CC:25:THR:O	2.19	0.42
4:CD:3:TYR:HE2	4:CD:5:GLY:C	2.28	0.42
5:CE:103:GLY:C	5:CE:104:ILE:HG22	2.39	0.42
54:CG:73:GLU:HA	54:CG:140:VAL:HG11	2.01	0.42
9:CI:17:ARG:NH1	9:CI:65:THR:HG21	2.35	0.42
10:CJ:35:GLN:NE2	10:CJ:78:GLU:H	2.17	0.42
10:CJ:66:GLU:HB2	14:CN:100:TRP:CZ3	2.55	0.42
12:CL:36:VAL:HA	12:CL:52:CYS:HA	2.00	0.42
12:CL:55:ARG:HA	12:CL:61:GLU:HA	2.02	0.42
55:CM:96:VAL:C	55:CM:98:GLY:H	2.28	0.42
22:DA:52:A:O2'	22:DA:53:A:H5'	2.20	0.42
22:DA:71:A:O4'	22:DA:73:A:C5	2.72	0.42
22:DA:88:G:O5'	22:DA:88:G:C8	2.73	0.42
22:DA:128:C:C2'	22:DA:129:C:C6	3.02	0.42
22:DA:233:A:N6	22:DA:428:A:H61	2.18	0.42
22:DA:516:C:H2'	22:DA:517:C:C6	2.52	0.42
22:DA:564:C:H3'	22:DA:564:C:H6	1.85	0.42
22:DA:851:C:H2'	22:DA:852:U:C5	2.54	0.42
22:DA:859:G:O2'	22:DA:916:G:N1	2.53	0.42
22:DA:972:A:C6	22:DA:973:A:C6	3.08	0.42
22:DA:975:A:N6	22:DA:989:G:H1'	2.34	0.42
22:DA:1009:A:N3	22:DA:1153:C:O2'	2.42	0.42
22:DA:1048:A:C2	22:DA:1049:C:N3	2.88	0.42
22:DA:1241:A:N3	22:DA:1241:A:O4'	2.52	0.42
22:DA:1249:U:H4'	38:DQ:3:VAL:CB	2.48	0.42
22:DA:1255:U:O2'	22:DA:1256:G:P	2.77	0.42
22:DA:1264:A:OP1	48:D0:15:ARG:NH1	2.43	0.42
22:DA:1304:A:O2'	22:DA:1305:C:P	2.78	0.42
22:DA:1334:G:C6	22:DA:1335:C:N3	2.88	0.42
22:DA:1464:G:O2'	22:DA:1465:G:H5'	2.20	0.42
22:DA:1520:U:C4	22:DA:1521:G:C5	3.08	0.42
22:DA:1666:G:H4'	32:DK:6:THR:CG2	2.43	0.42
22:DA:1838:C:N3	22:DA:1899:A:C2	2.87	0.42
22:DA:1866:A:H2'	22:DA:1867:G:O4'	2.20	0.42
22:DA:1991:U:C6	22:DA:1991:U:C4'	3.03	0.42
22:DA:1993:U:H2'	22:DA:1994:C:H6	1.82	0.42
22:DA:2060:A:O4'	22:DA:2502:G:H1'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2324:U:C5'	22:DA:2325:G:C5'	2.88	0.42
22:DA:2345:G:H4'	22:DA:2346:A:O5'	2.19	0.42
22:DA:2619:C:H1'	25:DD:155:VAL:HB	2.01	0.42
57:DB:52:A:H2	57:DB:54:G:O6	2.02	0.42
57:DB:57:A:C2'	57:DB:58:A:C8	3.02	0.42
57:DB:65:U:O2	57:DB:65:U:H2'	2.20	0.42
24:DC:16:VAL:HG23	24:DC:203:VAL:HG11	2.02	0.42
24:DC:231:HIS:NE2	24:DC:243:PRO:HA	2.34	0.42
58:DF:103:ILE:HG12	58:DF:175:PRO:HD3	2.02	0.42
58:DF:151:LEU:HD23	58:DF:152:ASP:O	2.20	0.42
30:DI:77:VAL:HA	30:DI:80:LYS:HE3	2.00	0.42
31:DJ:75:TYR:HD1	31:DJ:84:ILE:HD11	1.81	0.42
32:DK:42:THR:HG22	32:DK:44:LYS:HG3	2.02	0.42
33:DL:74:THR:OG1	33:DL:107:PHE:HB2	2.20	0.42
35:DN:73:ASN:HA	35:DN:76:VAL:CG1	2.49	0.42
38:DQ:9:ALA:O	38:DQ:12:ARG:HG2	2.19	0.42
40:DS:4:ILE:HB	40:DS:105:VAL:O	2.20	0.42
40:DS:46:LEU:C	40:DS:46:LEU:CD1	2.93	0.42
41:DT:67:VAL:HB	41:DT:76:ARG:HG3	2.02	0.42
42:DU:39:ASN:HD21	42:DU:64:ILE:HG22	1.85	0.42
46:DY:17:GLU:HG3	46:DY:53:VAL:CG1	2.41	0.42
48:D0:42:ILE:HD13	48:D0:42:ILE:HA	1.69	0.42
1:AA:269:C:C2'	1:AA:270:A:O5'	2.68	0.42
1:AA:363:A:C2'	1:AA:364:A:H5'	2.49	0.42
1:AA:368:U:H6	1:AA:368:U:H2'	1.41	0.42
1:AA:604:G:H2'	1:AA:605:U:O4'	2.18	0.42
1:AA:954:G:N2	1:AA:1228:C:C4	2.88	0.42
1:AA:1153:G:C2'	1:AA:1154:G:O5'	2.68	0.42
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.34	0.42
1:AA:1489:G:H2'	1:AA:1490:U:H5'	2.01	0.42
4:AD:18:LEU:C	4:AD:19:PHE:CD1	2.96	0.42
5:AE:67:ARG:HB2	5:AE:68:ARG:NE	2.33	0.42
10:AJ:33:GLY:N	10:AJ:83:THR:HB	2.35	0.42
10:AJ:35:GLN:CG	10:AJ:77:VAL:HB	2.45	0.42
10:AJ:49:PHE:CE1	14:AN:76:PHE:CZ	3.01	0.42
12:AL:24:GLU:CB	12:AL:26:CYS:SG	2.89	0.42
12:AL:87:LYS:O	12:AL:88:ASP:CB	2.67	0.42
17:AQ:14:ASP:O	17:AQ:20:ILE:CD1	2.68	0.42
22:BA:34:U:O2'	22:BA:35:G:H5'	2.19	0.42
22:BA:170:U:C2'	22:BA:171:U:O5'	2.68	0.42
22:BA:597:G:C6	22:BA:598:U:C4	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:608:A:N1	22:BA:609:A:C2	2.87	0.42
22:BA:743:A:O2'	22:BA:744:U:H5'	2.20	0.42
22:BA:764:A:C2	22:BA:781:A:C6	3.08	0.42
22:BA:1282:U:O2'	22:BA:1283:G:H5'	2.20	0.42
22:BA:1671:U:O2	22:BA:1673:G:H8	2.03	0.42
22:BA:2051:A:N6	22:BA:2614:A:C8	2.88	0.42
22:BA:2152:G:H2'	22:BA:2153:C:O4'	2.20	0.42
22:BA:2244:U:C2'	22:BA:2245:U:H5'	2.49	0.42
22:BA:2260:C:O2'	22:BA:2261:C:H5'	2.19	0.42
22:BA:2310:C:C5	27:BF:76:PHE:HZ	2.37	0.42
22:BA:2352:A:N1	44:BW:30:VAL:HG21	2.34	0.42
22:BA:2389:G:H5''	22:BA:2390:U:H5'	2.01	0.42
22:BA:2395:C:O5'	22:BA:2395:C:H6	2.02	0.42
22:BA:2544:G:O2'	22:BA:2545:G:H5'	2.20	0.42
22:BA:2548:U:H2'	22:BA:2549:G:O4'	2.19	0.42
23:BB:2:G:C6	23:BB:119:A:C2	3.07	0.42
23:BB:16:G:O2'	23:BB:17:C:H5'	2.19	0.42
24:BC:20:ASN:HA	24:BC:21:PRO:HD2	1.80	0.42
24:BC:175:LEU:HD12	24:BC:175:LEU:HA	1.80	0.42
24:BC:239:PHE:CE1	24:BC:241:LYS:HB2	2.54	0.42
27:BF:8:LYS:O	27:BF:12:VAL:CG1	2.68	0.42
27:BF:43:ILE:HA	27:BF:82:TYR:CE1	2.55	0.42
27:BF:113:PHE:HE1	27:BF:116:LEU:HD22	1.84	0.42
28:BG:167:VAL:C	28:BG:168:VAL:HG22	2.45	0.42
29:BH:62:LEU:C	29:BH:62:LEU:CD1	2.93	0.42
29:BH:100:ALA:O	29:BH:104:THR:N	2.53	0.42
31:BJ:81:ILE:HG12	31:BJ:82:GLY:H	1.85	0.42
31:BJ:111:LYS:CD	31:BJ:111:LYS:C	2.87	0.42
32:BK:19:VAL:CG2	32:BK:41:ILE:HG12	2.50	0.42
33:BL:62:PRO:HG2	51:B3:24:LYS:HD3	2.02	0.42
35:BN:8:ARG:HB3	35:BN:10:LEU:HD21	1.97	0.42
36:BO:35:ILE:HD11	36:BO:106:LEU:HD23	2.01	0.42
36:BO:58:ILE:HD11	36:BO:81:ARG:HH22	1.81	0.42
37:BP:33:GLU:HA	37:BP:38:ARG:HH11	1.84	0.42
37:BP:95:LYS:HB3	37:BP:97:TYR:CE1	2.55	0.42
41:BT:88:LYS:HD3	41:BT:88:LYS:HA	1.71	0.42
49:B1:8:ILE:C	49:B1:9:LYS:HD3	2.44	0.42
50:B2:43:THR:O	50:B2:44:VAL:CG2	2.68	0.42
53:CA:97:G:C2'	53:CA:98:A:O5'	2.68	0.42
53:CA:174:A:C2	53:CA:175:C:C6	3.08	0.42
53:CA:260:G:C6	53:CA:261:U:C4	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:321:A:N7	53:CA:328:C:C2	2.88	0.42
53:CA:418:C:H1'	53:CA:540:G:O2'	2.20	0.42
53:CA:433:G:O2'	53:CA:434:U:H5'	2.20	0.42
53:CA:497:G:O2'	53:CA:498:A:C8	2.68	0.42
53:CA:644:U:C2	53:CA:645:G:C8	3.08	0.42
53:CA:654:G:O2'	53:CA:655:A:C5'	2.67	0.42
53:CA:663:A:C2'	53:CA:664:G:H5'	2.49	0.42
53:CA:914:A:N3	53:CA:915:A:C8	2.87	0.42
53:CA:933:G:OP1	54:CG:3:ARG:HD3	2.20	0.42
53:CA:959:A:N6	53:CA:1222:G:H4'	2.34	0.42
53:CA:1108:G:H5''	3:CC:175:HIS:ND1	2.35	0.42
53:CA:1151:A:H5''	10:CJ:44:THR:OG1	2.19	0.42
53:CA:1302:C:H5''	55:CM:16:ILE:HG23	2.02	0.42
53:CA:1319:A:P	19:CS:4:LEU:HD21	2.60	0.42
5:CE:22:LYS:H	5:CE:29:ILE:HG22	1.84	0.42
10:CJ:48:ARG:NH1	10:CJ:48:ARG:CB	2.82	0.42
10:CJ:67:ILE:CG2	14:CN:95:LEU:H	2.32	0.42
11:CK:33:ILE:O	11:CK:41:LEU:HB2	2.19	0.42
12:CL:83:GLY:CA	12:CL:94:TYR:HD1	2.26	0.42
55:CM:2:ARG:O	55:CM:3:ILE:HB	2.19	0.42
14:CN:59:GLN:O	14:CN:60:ARG:HB2	2.20	0.42
56:CP:50:THR:O	56:CP:51:ARG:CZ	2.67	0.42
17:CQ:68:LYS:O	17:CQ:68:LYS:HG2	2.20	0.42
19:CS:54:ARG:CG	19:CS:55:GLN:N	2.81	0.42
21:CU:15:LEU:O	21:CU:15:LEU:CD1	2.59	0.42
22:DA:61:C:N3	22:DA:94:A:C2	2.88	0.42
22:DA:186:G:N2	22:DA:211:C:C2	2.88	0.42
22:DA:355:U:H2'	22:DA:356:G:H8	1.84	0.42
22:DA:468:G:H4'	26:DE:57:LYS:HG3	2.00	0.42
22:DA:499:U:C4	22:DA:500:G:C6	3.07	0.42
22:DA:586:A:N1	22:DA:809:G:O2'	2.45	0.42
22:DA:628:G:C6	22:DA:636:G:C2	3.08	0.42
22:DA:847:U:H5'	22:DA:848:C:OP2	2.19	0.42
22:DA:963:U:O2'	22:DA:964:C:H6	2.03	0.42
22:DA:1279:G:H4'	35:DN:31:HIS:CD2	2.54	0.42
22:DA:1361:G:C6	22:DA:1362:C:C5	3.08	0.42
22:DA:1394:U:H3'	22:DA:1394:U:C6	2.55	0.42
22:DA:1508:A:O3'	22:DA:1509:A:C2	2.72	0.42
22:DA:1590:A:C6	22:DA:1591:A:N6	2.88	0.42
22:DA:1815:A:H1'	22:DA:1817:G:C8	2.54	0.42
22:DA:1828:G:O2'	22:DA:1829:A:H5'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2053:G:H2'	22:DA:2054:A:O4'	2.19	0.42
22:DA:2077:A:C5	22:DA:2435:A:C5	3.08	0.42
22:DA:2258:C:H4'	22:DA:2259:U:OP2	2.20	0.42
22:DA:2376:A:N6	36:DO:94:ARG:HH21	2.18	0.42
22:DA:2439:A:N7	22:DA:2586:U:H4'	2.34	0.42
22:DA:2448:A:H61	33:DL:36:LYS:CE	2.33	0.42
22:DA:2510:C:O2'	22:DA:2511:U:H5'	2.20	0.42
22:DA:2511:U:H2'	22:DA:2512:C:C5'	2.50	0.42
22:DA:2683:C:OP1	37:DP:55:HIS:HB3	2.20	0.42
22:DA:2850:A:C6	22:DA:2869:G:C4'	3.02	0.42
22:DA:2858:C:H2'	22:DA:2859:G:O4'	2.18	0.42
57:DB:46:A:C5	57:DB:47:C:C5	3.07	0.42
57:DB:85:G:O2'	57:DB:86:G:H5'	2.19	0.42
24:DC:73:ILE:CA	24:DC:116:GLN:HE21	2.33	0.42
24:DC:171:VAL:HG12	24:DC:171:VAL:O	2.17	0.42
24:DC:171:VAL:HB	24:DC:185:ALA:HB2	2.01	0.42
25:DD:22:ILE:HA	25:DD:23:PRO:HD2	1.89	0.42
26:DE:117:ARG:NH1	26:DE:183:PHE:O	2.51	0.42
58:DF:166:ARG:H	58:DF:166:ARG:HG2	1.67	0.42
29:DH:31:VAL:CB	29:DH:32:PRO:CD	2.98	0.42
34:DM:33:LEU:HD21	34:DM:128:THR:HB	1.98	0.42
34:DM:81:ARG:HH21	34:DM:84:LYS:CE	2.33	0.42
39:DR:62:GLU:HB2	39:DR:99:THR:CG2	2.50	0.42
41:DT:39:THR:HG21	41:DT:42:GLU:CD	2.44	0.42
43:DV:21:ARG:NE	43:DV:87:GLN:HG2	2.34	0.42
44:DW:37:VAL:C	44:DW:39:GLN:N	2.78	0.42
44:DW:70:VAL:O	44:DW:70:VAL:CG2	2.67	0.42
45:DX:70:LEU:O	45:DX:74:GLY:N	2.52	0.42
51:D3:24:LYS:O	51:D3:25:HIS:CD2	2.73	0.42
1:AA:235:C:O2'	1:AA:236:A:H5'	2.20	0.42
1:AA:267:C:H2'	1:AA:268:U:C5	2.55	0.42
1:AA:283:U:C5	1:AA:284:C:C5	3.08	0.42
1:AA:316:C:N3	1:AA:317:U:C5	2.88	0.42
1:AA:652:U:O2'	1:AA:653:U:P	2.77	0.42
1:AA:754:C:C3'	1:AA:755:G:H5'	2.50	0.42
1:AA:923:A:C4	1:AA:924:C:C5	3.07	0.42
1:AA:947:G:H2'	1:AA:948:C:C6	2.54	0.42
1:AA:1118:U:OP1	9:AI:10:ARG:HD2	2.20	0.42
1:AA:1173:U:H2'	1:AA:1174:G:H8	1.85	0.42
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.54	0.42
2:AB:20:ARG:O	2:AB:21:TYR:C	2.63	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:162:VAL:HG22	2:AB:184:ALA:CB	2.45	0.42
3:AC:116:ALA:O	3:AC:119:ILE:HG22	2.20	0.42
8:AH:17:GLN:O	8:AH:20:ASN:N	2.52	0.42
9:AI:42:THR:O	9:AI:43:ALA:CB	2.68	0.42
13:AM:14:ALA:O	13:AM:18:LEU:HD23	2.20	0.42
19:AS:50:VAL:CG2	19:AS:70:LEU:HB3	2.32	0.42
21:AU:19:LYS:C	21:AU:21:SER:H	2.28	0.42
22:BA:139:U:C5	41:BT:1:MET:SD	3.13	0.42
22:BA:260:G:H8	22:BA:260:G:O5'	2.02	0.42
22:BA:531:C:H5'	22:BA:532:A:C5	2.54	0.42
22:BA:609:A:H61	22:BA:619:G:C2'	2.32	0.42
22:BA:609:A:H2'	22:BA:610:C:O4'	2.19	0.42
22:BA:820:A:H2'	22:BA:821:A:O4'	2.20	0.42
22:BA:877:A:N6	22:BA:899:A:N6	2.67	0.42
22:BA:956:G:O2'	34:BM:82:MET:HE1	2.20	0.42
22:BA:995:C:O2'	22:BA:996:A:OP2	2.37	0.42
22:BA:1002:G:H2'	22:BA:1003:G:O5'	2.20	0.42
22:BA:1059:G:C6	22:BA:1060:U:C4	3.08	0.42
22:BA:1083:U:C2'	22:BA:1084:A:O5'	2.66	0.42
22:BA:1296:G:H2'	22:BA:1297:C:H6	1.84	0.42
22:BA:1315:C:OP2	62:BA:3753:HOH:O	2.21	0.42
22:BA:1829:A:O2'	22:BA:1830:C:H5'	2.20	0.42
22:BA:2037:A:C6	22:BA:2038:G:C6	3.08	0.42
22:BA:2225:A:H4'	22:BA:2226:C:O5'	2.19	0.42
22:BA:2258:C:H4'	22:BA:2259:U:OP2	2.19	0.42
22:BA:2478:A:C2'	22:BA:2479:U:H5'	2.49	0.42
22:BA:2733:A:H8	22:BA:2733:A:O5'	2.03	0.42
22:BA:2886:A:H2'	22:BA:2887:A:O4'	2.20	0.42
24:BC:33:LEU:HA	24:BC:61:TYR:O	2.19	0.42
24:BC:181:ARG:HG2	24:BC:181:ARG:HH21	1.85	0.42
24:BC:196:ASN:OD1	24:BC:197:ALA:N	2.52	0.42
24:BC:199:HIS:C	24:BC:201:LEU:N	2.77	0.42
25:BD:2:ILE:HG13	25:BD:100:LEU:HD21	2.02	0.42
28:BG:164:ALA:C	28:BG:166:GLU:N	2.78	0.42
30:BI:58:ILE:HG22	30:BI:60:VAL:CG2	2.50	0.42
30:BI:111:THR:O	30:BI:113:ALA:N	2.47	0.42
31:BJ:1:MET:HE3	31:BJ:1:MET:N	2.35	0.42
32:BK:4:GLU:OE2	32:BK:23:LYS:CE	2.58	0.42
33:BL:20:GLY:O	33:BL:21:ARG:HD3	2.20	0.42
33:BL:90:VAL:HG13	33:BL:95:LEU:HG	2.01	0.42
37:BP:87:ARG:NH1	37:BP:87:ARG:HG2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BS:62:ASP:O	40:BS:63:GLY:C	2.62	0.42
44:BW:29:SER:CA	44:BW:63:ASP:HB3	2.50	0.42
45:BX:34:SER:CB	45:BX:49:ARG:HA	2.50	0.42
49:B1:31:GLU:OE2	49:B1:31:GLU:N	2.41	0.42
53:CA:61:G:H5''	53:CA:61:G:H8	1.85	0.42
53:CA:155:A:C5	53:CA:156:C:C4	3.07	0.42
53:CA:398:U:H2'	53:CA:399:G:C8	2.54	0.42
53:CA:725:G:C5	53:CA:726:C:C5	3.08	0.42
53:CA:737:C:OP1	6:CF:91:ARG:HD2	2.19	0.42
53:CA:913:A:OP1	12:CL:43:LYS:CE	2.68	0.42
53:CA:948:C:OP2	55:CM:104:ASN:HB3	2.20	0.42
53:CA:949:A:C2	53:CA:1233:G:C2	3.07	0.42
53:CA:1081:A:H2'	53:CA:1082:A:O4'	2.20	0.42
53:CA:1178:G:OP2	9:CI:98:ARG:NH2	2.53	0.42
2:CB:198:VAL:O	2:CB:198:VAL:HG23	2.20	0.42
4:CD:26:ALA:O	4:CD:27:ILE:C	2.62	0.42
4:CD:70:GLN:NE2	4:CD:133:SER:HB3	2.35	0.42
5:CE:40:ASP:OD1	5:CE:41:GLY:N	2.46	0.42
5:CE:70:MET:HE3	5:CE:70:MET:HB3	1.95	0.42
9:CI:11:ARG:HD3	9:CI:106:ASP:CG	2.44	0.42
9:CI:106:ASP:OD1	9:CI:106:ASP:N	2.50	0.42
10:CJ:81:GLU:C	10:CJ:83:THR:H	2.27	0.42
55:CM:62:PHE:O	55:CM:64:VAL:HG23	2.19	0.42
56:CP:78:VAL:O	56:CP:80:LYS:N	2.53	0.42
17:CQ:29:LYS:CE	17:CQ:36:PHE:CZ	2.96	0.42
22:DA:9:G:C5	22:DA:2629:U:C4	3.08	0.42
22:DA:30:G:C6	22:DA:31:C:N3	2.87	0.42
22:DA:265:A:N6	22:DA:428:A:O4'	2.53	0.42
22:DA:447:A:C4	22:DA:473:G:N7	2.87	0.42
22:DA:545:U:C4	22:DA:547:A:H4'	2.55	0.42
22:DA:800:A:N1	22:DA:802:A:C8	2.88	0.42
22:DA:839:U:H2'	22:DA:840:C:C6	2.55	0.42
22:DA:915:C:O2	57:DB:100:G:H4'	2.19	0.42
22:DA:1048:A:C6	22:DA:1111:A:C2	3.08	0.42
22:DA:1123:C:H2'	22:DA:1124:G:C8	2.54	0.42
22:DA:1462:C:H1'	22:DA:2702:G:H21	1.84	0.42
22:DA:1570:A:H8	22:DA:1570:A:O5'	2.03	0.42
22:DA:1594:U:H2'	22:DA:1595:C:H6	1.83	0.42
22:DA:1885:A:H3'	22:DA:1886:U:C6	2.55	0.42
22:DA:2077:A:N6	22:DA:2435:A:N6	2.68	0.42
22:DA:2197:U:O2	22:DA:2225:A:N7	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2301:C:C4	22:DA:2302:U:C5	3.08	0.42
22:DA:2543:G:C6	22:DA:2765:A:C5	3.08	0.42
22:DA:2553:G:C2	22:DA:2554:U:H1'	2.55	0.42
22:DA:2666:C:O2	22:DA:2666:C:O4'	2.36	0.42
22:DA:2848:G:OP2	37:DP:94:ALA:CB	2.68	0.42
22:DA:2863:C:O2'	22:DA:2864:G:H5'	2.20	0.42
25:DD:33:ARG:HB3	25:DD:95:SER:OG	2.19	0.42
28:DG:10:VAL:HB	28:DG:14:VAL:HG11	2.01	0.42
28:DG:36:LEU:N	28:DG:36:LEU:CD1	2.83	0.42
28:DG:117:PRO:CD	28:DG:143:VAL:HG11	2.50	0.42
32:DK:61:VAL:HG13	32:DK:87:LEU:CD2	2.49	0.42
34:DM:53:MET:HB2	34:DM:120:ALA:HB2	2.00	0.42
37:DP:19:PHE:CE1	37:DP:58:PHE:CG	3.07	0.42
37:DP:92:ARG:O	37:DP:93:LYS:HB2	2.20	0.42
39:DR:78:ARG:HD2	39:DR:83:TYR:HD1	1.83	0.42
44:DW:18:LYS:HE3	44:DW:19:ARG:NH2	2.35	0.42
45:DX:15:ASN:C	45:DX:26:ARG:HG2	2.44	0.42
45:DX:71:ARG:C	45:DX:73:ARG:N	2.77	0.42
46:DY:1:MET:H1	46:DY:1:MET:CE	2.21	0.42
46:DY:4:LYS:HZ3	46:DY:4:LYS:CB	2.32	0.42
1:AA:109:A:C3'	1:AA:110:C:H5'	2.47	0.42
1:AA:182:A:H1'	1:AA:183:C:H6	1.85	0.42
1:AA:228:A:H2'	1:AA:229:U:O4'	2.20	0.42
1:AA:377:G:C5'	16:AP:5:ARG:NH1	2.83	0.42
1:AA:543:U:H2'	1:AA:544:G:O4'	2.20	0.42
1:AA:633:G:C4	1:AA:634:C:C6	3.07	0.42
1:AA:903:G:C4	1:AA:904:U:C5	3.08	0.42
1:AA:1142:G:H3'	1:AA:1143:G:H8	1.85	0.42
1:AA:1283:U:O2'	1:AA:1284:C:H5'	2.20	0.42
1:AA:1382:C:O2'	1:AA:1383:C:H5'	2.20	0.42
1:AA:1412:C:H2'	1:AA:1413:A:H8	1.85	0.42
1:AA:1511:G:H2'	1:AA:1512:U:H6	1.85	0.42
2:AB:18:GLN:HG2	2:AB:189:ASN:ND2	2.35	0.42
3:AC:108:PRO:C	3:AC:110:LEU:N	2.77	0.42
5:AE:64:GLU:HA	5:AE:67:ARG:CG	2.50	0.42
9:AI:71:ILE:HG22	9:AI:72:SER:N	2.35	0.42
13:AM:49:GLU:O	13:AM:52:ILE:HG22	2.20	0.42
20:AT:30:PHE:O	20:AT:33:LYS:HB2	2.20	0.42
22:BA:57:C:H2'	22:BA:58:G:O4'	2.20	0.42
22:BA:235:U:H2'	22:BA:236:C:C6	2.51	0.42
22:BA:582:A:H2'	22:BA:583:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1244:A:H5'	33:BL:8:PRO:HD3	2.01	0.42
22:BA:1298:C:C2	22:BA:1643:G:N2	2.88	0.42
22:BA:1326:U:O2'	22:BA:1327:A:H5'	2.20	0.42
22:BA:1378:A:O2'	22:BA:1379:U:P	2.78	0.42
22:BA:1521:G:C6	22:BA:1522:A:C6	3.07	0.42
22:BA:1539:U:O2	22:BA:1540:G:C8	2.72	0.42
22:BA:1557:C:H2'	22:BA:1558:C:C5	2.55	0.42
22:BA:1590:A:C2'	22:BA:1591:A:H8	2.20	0.42
22:BA:2079:U:O2'	45:BX:22:ASN:ND2	2.50	0.42
22:BA:2217:G:C2'	22:BA:2218:G:C5'	2.98	0.42
22:BA:2313:C:H5''	27:BF:87:LYS:HD3	2.01	0.42
22:BA:2315:G:C2'	22:BA:2316:G:O5'	2.67	0.42
22:BA:2364:C:H2'	22:BA:2365:G:C5'	2.49	0.42
22:BA:2365:G:C2'	22:BA:2366:A:H8	2.33	0.42
22:BA:2447:G:H8	22:BA:2501:C:H5''	1.83	0.42
22:BA:2466:C:OP1	52:B4:4:ARG:HB2	2.20	0.42
22:BA:2602:A:H4'	22:BA:2603:G:H5'	2.01	0.42
23:BB:53:A:O2'	23:BB:54:G:C5'	2.66	0.42
23:BB:57:A:HO2'	23:BB:58:A:H5'	1.80	0.42
23:BB:62:C:O2'	23:BB:63:C:H5'	2.20	0.42
24:BC:115:ILE:HD12	24:BC:115:ILE:HA	1.63	0.42
24:BC:131:MET:HA	24:BC:134:ILE:CG1	2.50	0.42
24:BC:180:MET:HE2	24:BC:268:ARG:HH12	1.84	0.42
24:BC:255:LYS:C	24:BC:257:ARG:N	2.69	0.42
25:BD:3:GLY:O	25:BD:82:PHE:CZ	2.73	0.42
25:BD:106:LYS:H	25:BD:106:LYS:CD	2.24	0.42
25:BD:106:LYS:HB2	25:BD:206:ALA:H	1.85	0.42
25:BD:180:VAL:O	25:BD:181:ASP:HB2	2.20	0.42
26:BE:96:VAL:CG1	26:BE:101:TYR:HB2	2.49	0.42
28:BG:7:PRO:O	28:BG:8:VAL:CB	2.60	0.42
28:BG:124:CYS:HA	28:BG:125:PRO:HD2	1.75	0.42
29:BH:68:ARG:HH21	29:BH:72:ILE:HG21	1.77	0.42
29:BH:94:ILE:HD12	29:BH:98:ASP:O	2.19	0.42
31:BJ:117:ALA:CA	31:BJ:120:ARG:NH2	2.73	0.42
32:BK:76:VAL:N	37:BP:72:VAL:HG23	2.35	0.42
33:BL:111:ILE:HD12	33:BL:111:ILE:HA	1.77	0.42
45:BX:39:VAL:C	45:BX:41:SER:N	2.78	0.42
53:CA:43:C:H2'	53:CA:44:A:C5'	2.50	0.42
53:CA:130:A:H1'	53:CA:264:C:H5'	2.02	0.42
53:CA:441:A:C2	53:CA:497:G:C5	3.08	0.42
53:CA:464:U:O4	53:CA:466:A:C4'	2.65	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:554:A:H2'	53:CA:555:U:H6	1.84	0.42
53:CA:708:C:O2'	53:CA:709:U:H5'	2.20	0.42
53:CA:1018:G:H2'	53:CA:1019:A:O5'	2.20	0.42
53:CA:1111:A:H3'	53:CA:1111:A:C8	2.55	0.42
53:CA:1112:C:O2	3:CC:178:ARG:HG2	2.20	0.42
53:CA:1137:C:H4'	53:CA:1138:G:C2	2.54	0.42
53:CA:1268:G:C6	53:CA:1269:A:N6	2.88	0.42
53:CA:1452:C:H5'	53:CA:1453:G:C4	2.55	0.42
2:CB:99:MET:O	2:CB:103:TRP:CB	2.67	0.42
4:CD:3:TYR:CE2	4:CD:5:GLY:N	2.88	0.42
4:CD:80:ARG:HB2	4:CD:81:LEU:H	1.43	0.42
4:CD:84:ASN:CG	5:CE:101:GLY:CA	2.92	0.42
54:CG:41:ILE:HD13	54:CG:115:MET:HB3	2.02	0.42
8:CH:63:LYS:O	8:CH:70:VAL:HG12	2.19	0.42
9:CI:4:GLN:HB3	9:CI:21:LYS:CG	2.50	0.42
10:CJ:38:GLY:HA2	10:CJ:39:PRO:HD2	1.89	0.42
11:CK:26:PHE:CZ	11:CK:88:PRO:CG	3.02	0.42
11:CK:96:ILE:HD13	11:CK:109:ILE:HD13	2.02	0.42
55:CM:13:HIS:O	55:CM:14:ALA:C	2.61	0.42
55:CM:52:ILE:C	55:CM:54:THR:H	2.28	0.42
56:CP:16:PHE:CZ	56:CP:38:PHE:CD1	3.08	0.42
18:CR:28:LEU:C	18:CR:30:ASN:N	2.78	0.42
20:CT:57:VAL:HG11	20:CT:71:ALA:HA	2.01	0.42
22:DA:35:G:O2'	22:DA:36:G:O4'	2.33	0.42
22:DA:136:G:H8	22:DA:136:G:P	2.43	0.42
22:DA:311:A:O2'	22:DA:312:G:OP1	2.38	0.42
22:DA:482:A:O2'	22:DA:483:A:P	2.78	0.42
22:DA:509:C:H6	22:DA:509:C:H2'	1.65	0.42
22:DA:547:A:H3'	22:DA:548:G:C5'	2.50	0.42
22:DA:573:U:O2'	22:DA:574:A:H3'	2.20	0.42
22:DA:606:U:O2'	22:DA:607:U:H4'	2.20	0.42
22:DA:633:A:H5''	33:DL:70:LYS:HD3	2.02	0.42
22:DA:901:C:H2'	22:DA:902:C:H6	1.85	0.42
22:DA:922:C:H2'	22:DA:923:G:H8	1.85	0.42
22:DA:1060:U:O4	30:DI:131:THR:HG22	2.19	0.42
22:DA:1102:C:H6	22:DA:1102:C:OP2	2.03	0.42
22:DA:1161:C:O2'	22:DA:1162:G:H5'	2.19	0.42
22:DA:1255:U:O4	22:DA:2060:A:H5'	2.20	0.42
22:DA:1341:G:H4'	22:DA:1342:A:OP2	2.18	0.42
22:DA:1362:C:H5'	22:DA:2215:C:H4'	2.02	0.42
22:DA:1378:A:C8	22:DA:1380:G:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1385:A:HO2'	22:DA:1386:C:H6	1.55	0.42
22:DA:1745:A:H2'	22:DA:1746:A:H8	1.85	0.42
22:DA:1784:A:H4'	22:DA:1785:A:C5'	2.43	0.42
22:DA:1963:U:O2'	22:DA:1964:G:H5'	2.20	0.42
22:DA:2035:G:H4'	22:DA:2036:C:OP2	2.20	0.42
22:DA:2051:A:C2	22:DA:2052:A:N6	2.87	0.42
22:DA:2087:G:H2'	22:DA:2088:A:H8	1.85	0.42
22:DA:2107:G:H2'	22:DA:2108:A:H8	1.82	0.42
22:DA:2199:A:C2	22:DA:2200:C:H1'	2.55	0.42
22:DA:2283:C:N4	22:DA:2389:G:C6	2.88	0.42
22:DA:2298:A:O2'	22:DA:2299:U:H5'	2.19	0.42
22:DA:2329:U:O5'	22:DA:2329:U:H6	2.03	0.42
22:DA:2729:G:O4'	25:DD:191:GLY:HA2	2.20	0.42
22:DA:2839:G:H2'	22:DA:2840:C:O4'	2.20	0.42
57:DB:30:C:C2'	57:DB:31:C:H5'	2.47	0.42
57:DB:64:G:C6	57:DB:65:U:C4	3.08	0.42
57:DB:91:C:H2'	57:DB:92:C:C6	2.54	0.42
24:DC:67:LYS:CB	24:DC:150:GLY:HA2	2.50	0.42
24:DC:129:LEU:HG	24:DC:134:ILE:HG23	2.02	0.42
25:DD:19:GLY:O	32:DK:72:PRO:HB2	2.19	0.42
25:DD:204:LYS:HA	25:DD:205:PRO:HD2	1.84	0.42
58:DF:84:ILE:O	58:DF:84:ILE:HG13	2.19	0.42
28:DG:157:LYS:C	28:DG:159:LYS:N	2.75	0.42
31:DJ:133:ALA:C	31:DJ:135:GLN:H	2.28	0.42
32:DK:87:LEU:O	32:DK:89:ASN:N	2.53	0.42
33:DL:23:ILE:N	33:DL:23:ILE:CD1	2.82	0.42
34:DM:99:GLY:O	34:DM:100:LYS:C	2.62	0.42
36:DO:108:ASP:C	36:DO:110:ALA:N	2.78	0.42
37:DP:86:LYS:NZ	37:DP:86:LYS:N	2.68	0.42
38:DQ:21:LYS:HD2	38:DQ:21:LYS:HA	1.91	0.42
40:DS:8:ARG:CA	40:DS:102:HIS:ND1	2.79	0.42
41:DT:14:PRO:HA	41:DT:32:LEU:HB3	2.02	0.42
43:DV:57:TYR:N	43:DV:57:TYR:CD1	2.87	0.42
45:DX:44:ARG:HH11	45:DX:44:ARG:CB	2.33	0.42
1:AA:197:A:C4'	1:AA:198:G:O5'	2.66	0.41
1:AA:207:C:O2	1:AA:207:C:H2'	2.20	0.41
1:AA:255:G:O2'	1:AA:256:U:H5'	2.20	0.41
1:AA:272:C:C2'	1:AA:273:U:O5'	2.68	0.41
1:AA:592:G:C6	1:AA:648:A:C6	3.07	0.41
1:AA:708:C:O2'	1:AA:709:U:H5'	2.19	0.41
1:AA:922:G:C6	1:AA:923:A:C6	3.07	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1115:U:O2'	1:AA:1116:U:H5'	2.19	0.41
1:AA:1228:C:O2'	1:AA:1229:A:H5'	2.20	0.41
1:AA:1414:U:H2'	1:AA:1415:G:H8	1.85	0.41
2:AB:72:LYS:C	2:AB:74:ALA:H	2.26	0.41
2:AB:219:THR:HG23	2:AB:220:VAL:N	2.34	0.41
4:AD:25:ARG:HH12	4:AD:30:LYS:HG2	1.84	0.41
7:AG:69:ARG:HG3	7:AG:95:ARG:CD	2.49	0.41
10:AJ:81:GLU:CA	10:AJ:84:VAL:HG12	2.50	0.41
11:AK:62:ALA:O	11:AK:65:ALA:HB3	2.19	0.41
12:AL:3:VAL:HG23	12:AL:4:ASN:H	1.85	0.41
12:AL:42:LYS:HE3	12:AL:43:LYS:HE3	2.02	0.41
13:AM:1:ALA:CB	13:AM:8:ILE:HG23	2.47	0.41
13:AM:10:ASP:O	13:AM:11:HIS:CB	2.68	0.41
14:AN:42:ASN:O	14:AN:44:VAL:N	2.53	0.41
16:AP:46:LYS:HB2	16:AP:47:GLU:H	1.63	0.41
19:AS:3:SER:O	19:AS:5:LYS:HG3	2.20	0.41
20:AT:8:LYS:C	20:AT:11:ILE:HG23	2.44	0.41
22:BA:186:G:N3	22:BA:187:G:C8	2.88	0.41
22:BA:365:U:H2'	22:BA:366:C:C6	2.55	0.41
22:BA:404:A:O4'	22:BA:406:G:C8	2.73	0.41
22:BA:659:G:H4'	26:BE:95:LYS:HD3	2.02	0.41
22:BA:843:G:O2'	22:BA:844:A:H5'	2.20	0.41
22:BA:969:G:C6	22:BA:970:U:C4	3.07	0.41
22:BA:1011:G:H1'	22:BA:1013:C:O4'	2.20	0.41
22:BA:1011:G:H5''	38:BQ:76:SER:OG	2.20	0.41
22:BA:1046:A:H4'	22:BA:1046:A:OP2	2.19	0.41
22:BA:1084:A:C5	22:BA:1085:A:N7	2.88	0.41
22:BA:1139:G:C2	22:BA:1140:C:C6	3.09	0.41
22:BA:1378:A:HO2'	22:BA:1379:U:P	2.38	0.41
22:BA:1450:G:O6	22:BA:1451:C:N4	2.52	0.41
22:BA:1534:U:H5'	22:BA:1535:A:P	2.59	0.41
22:BA:1662:U:O2	22:BA:1662:U:H2'	2.19	0.41
22:BA:1720:U:H2'	22:BA:1721:G:O4'	2.20	0.41
22:BA:2547:A:H2'	22:BA:2548:U:H6	1.77	0.41
22:BA:2748:A:H1'	28:BG:66:THR:CG2	2.50	0.41
23:BB:42:C:P	27:BF:63:LYS:HE2	2.60	0.41
24:BC:41:GLY:N	24:BC:53:ILE:HG22	2.34	0.41
24:BC:83:ASP:OD1	24:BC:85:ASN:OD1	2.38	0.41
24:BC:234:GLY:O	24:BC:235:GLU:HB3	2.20	0.41
25:BD:104:VAL:CG1	25:BD:106:LYS:H	2.33	0.41
26:BE:79:ARG:CG	26:BE:80:SER:N	2.67	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:170:ARG:HG2	26:BE:170:ARG:NH2	2.34	0.41
27:BF:174:PHE:HD1	27:BF:176:PHE:CD1	2.38	0.41
33:BL:75:ALA:HB3	33:BL:101:ILE:HD11	2.02	0.41
35:BN:12:ARG:HB3	35:BN:13:ASN:H	1.67	0.41
38:BQ:82:LEU:HD21	38:BQ:112:ALA:HB2	2.02	0.41
39:BR:44:GLY:O	39:BR:45:GLU:HG2	2.19	0.41
40:BS:41:LYS:O	40:BS:44:ALA:N	2.53	0.41
43:BV:71:LYS:C	43:BV:72:VAL:CG1	2.92	0.41
44:BW:40:ARG:O	44:BW:44:PHE:CE1	2.72	0.41
44:BW:46:ALA:CB	44:BW:79:ILE:O	2.50	0.41
46:BY:25:GLN:O	46:BY:29:ARG:HB2	2.19	0.41
47:BZ:16:LEU:HB3	47:BZ:17:PRO:CD	2.49	0.41
47:BZ:40:THR:CG2	47:BZ:43:ILE:HG23	2.50	0.41
53:CA:9:G:H2'	53:CA:10:A:C8	2.54	0.41
53:CA:9:G:C2	53:CA:10:A:C8	3.08	0.41
53:CA:274:A:O2'	53:CA:275:G:O5'	2.38	0.41
53:CA:375:U:C2	53:CA:376:G:C8	3.08	0.41
53:CA:654:G:O2'	53:CA:655:A:O4'	2.27	0.41
53:CA:885:G:H8	53:CA:885:G:OP2	2.02	0.41
53:CA:1067:A:O3'	53:CA:1094:G:H5'	2.19	0.41
53:CA:1084:G:C5	53:CA:1085:U:O4	2.72	0.41
53:CA:1092:A:H5'	54:CG:3:ARG:NH2	2.34	0.41
53:CA:1223:C:H5''	53:CA:1224:U:OP2	2.20	0.41
53:CA:1345:U:C6	53:CA:1377:A:C2	3.07	0.41
53:CA:1365:G:O2'	53:CA:1366:C:O5'	2.38	0.41
53:CA:1381:U:N3	54:CG:77:ARG:CZ	2.82	0.41
2:CB:34:ARG:HD3	2:CB:35:ASN:N	2.35	0.41
2:CB:187:ASP:C	2:CB:189:ASN:H	2.27	0.41
3:CC:11:LEU:C	3:CC:13:ILE:H	2.28	0.41
3:CC:190:THR:OG1	3:CC:195:ILE:HG13	2.20	0.41
4:CD:33:ILE:O	4:CD:33:ILE:CG2	2.68	0.41
4:CD:141:VAL:HG22	4:CD:180:THR:HG23	2.02	0.41
4:CD:156:ALA:O	4:CD:160:LEU:CD2	2.64	0.41
54:CG:68:VAL:O	54:CG:70:PRO:HD3	2.19	0.41
8:CH:41:GLU:C	8:CH:43:GLY:H	2.28	0.41
10:CJ:52:LEU:HB2	14:CN:80:ARG:NE	2.32	0.41
55:CM:13:HIS:NE2	55:CM:41:ASP:HA	2.34	0.41
55:CM:76:ILE:O	55:CM:80:MET:HE2	2.20	0.41
14:CN:61:ASN:CG	14:CN:72:PHE:CE1	2.98	0.41
17:CQ:80:LYS:CB	17:CQ:80:LYS:NZ	2.83	0.41
18:CR:25:ILE:HA	18:CR:28:LEU:HB2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CR:54:LEU:HD12	18:CR:54:LEU:HA	1.91	0.41
21:CU:34:ARG:HG3	21:CU:35:GLU:N	2.35	0.41
22:DA:224:U:O4	22:DA:232:G:N2	2.53	0.41
22:DA:300:A:H2'	22:DA:301:G:C5'	2.50	0.41
22:DA:672:C:O2'	26:DE:77:ILE:HD11	2.19	0.41
22:DA:1126:A:OP1	22:DA:1126:A:C8	2.67	0.41
22:DA:1139:G:C2'	22:DA:1140:C:C5'	2.98	0.41
22:DA:1206:G:C4	22:DA:1207:C:C5	3.07	0.41
22:DA:1251:C:C5	38:DQ:5:ARG:NH1	2.88	0.41
22:DA:1265:A:C8	22:DA:1267:U:C2	3.08	0.41
22:DA:1270:C:C5'	22:DA:1271:G:OP1	2.68	0.41
22:DA:1576:U:C2	22:DA:1577:C:C5	3.08	0.41
22:DA:1587:G:H21	22:DA:1588:G:H1'	1.82	0.41
22:DA:1838:C:N4	22:DA:1899:A:O4'	2.53	0.41
22:DA:2013:A:N6	22:DA:2014:A:N1	2.68	0.41
22:DA:2191:A:N7	22:DA:2192:U:C5	2.88	0.41
22:DA:2196:C:O2	22:DA:2196:C:H2'	2.19	0.41
22:DA:2216:G:O2'	22:DA:2217:G:C8	2.38	0.41
22:DA:2276:G:O2'	22:DA:2277:G:C5'	2.64	0.41
22:DA:2694:G:C5	22:DA:2695:U:C5	3.08	0.41
22:DA:2772:C:O2	22:DA:2772:C:H2'	2.20	0.41
22:DA:2836:U:HO2'	22:DA:2837:A:P	2.41	0.41
57:DB:11:C:H3'	57:DB:12:C:C5'	2.50	0.41
57:DB:44:G:H5''	58:DF:91:ARG:NE	2.33	0.41
57:DB:110:C:H2'	57:DB:111:U:H6	1.85	0.41
24:DC:16:VAL:N	24:DC:203:VAL:CG1	2.70	0.41
24:DC:149:LYS:HE3	24:DC:152:GLN:OE1	2.18	0.41
24:DC:255:LYS:O	24:DC:256:THR:CG2	2.62	0.41
58:DF:47:LYS:HA	58:DF:50:ASP:CB	2.47	0.41
58:DF:49:LEU:CD2	58:DF:49:LEU:H	2.27	0.41
29:DH:64:ALA:C	29:DH:66:ASN:N	2.76	0.41
31:DJ:34:ARG:HE	31:DJ:34:ARG:HB3	1.74	0.41
31:DJ:86:GLN:HG2	31:DJ:87:ALA:H	1.85	0.41
33:DL:141:LYS:C	33:DL:142:ILE:HD12	2.45	0.41
39:DR:33:VAL:O	39:DR:33:VAL:HG23	2.19	0.41
40:DS:37:THR:HG22	40:DS:37:THR:O	2.20	0.41
41:DT:22:THR:OG1	41:DT:23:ALA:N	2.50	0.41
42:DU:91:LYS:C	42:DU:92:VAL:HG22	2.45	0.41
43:DV:83:LYS:HA	43:DV:84:PRO:HD3	1.91	0.41
44:DW:73:PRO:O	44:DW:74:LYS:C	2.63	0.41
45:DX:38:TRP:NE1	45:DX:40:GLU:HG2	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:DZ:40:THR:HB	47:DZ:43:ILE:HG13	2.01	0.41
1:AA:358:U:H2'	1:AA:359:G:H8	1.85	0.41
1:AA:401:C:C6	1:AA:401:C:C3'	3.03	0.41
1:AA:407:U:H2'	1:AA:408:A:O4'	2.20	0.41
1:AA:672:U:O2'	1:AA:673:A:H5'	2.20	0.41
1:AA:833:G:C2	1:AA:834:U:C2	3.08	0.41
1:AA:874:G:C6	1:AA:875:U:C4	3.08	0.41
1:AA:985:C:C4	1:AA:986:U:O4	2.73	0.41
1:AA:1152:A:OP1	10:AJ:70:HIS:ND1	2.53	0.41
1:AA:1492:A:N1	22:BA:1913:A:C4	2.88	0.41
1:AA:1521:C:C2	1:AA:1522:U:C6	3.08	0.41
4:AD:124:VAL:HG23	4:AD:125:ASN:N	2.35	0.41
5:AE:17:VAL:HA	5:AE:33:THR:O	2.21	0.41
7:AG:91:ARG:HA	7:AG:92:PRO:HD3	1.86	0.41
7:AG:132:THR:O	7:AG:135:LYS:HB3	2.19	0.41
8:AH:82:LEU:C	8:AH:82:LEU:CD2	2.93	0.41
9:AI:26:LYS:HG3	9:AI:61:ASP:OD1	2.21	0.41
10:AJ:81:GLU:HA	10:AJ:81:GLU:OE1	2.20	0.41
12:AL:98:ARG:HD2	12:AL:103:CYS:SG	2.60	0.41
14:AN:46:LYS:HD2	19:AS:12:LEU:CD2	2.46	0.41
16:AP:77:GLU:C	16:AP:79:ASN:N	2.75	0.41
17:AQ:19:SER:N	17:AQ:47:ASP:OD2	2.53	0.41
17:AQ:28:VAL:HG23	17:AQ:29:LYS:O	2.21	0.41
18:AR:56:ARG:NH2	18:AR:60:ARG:HH12	2.18	0.41
20:AT:47:GLN:HE21	20:AT:82:ILE:HD13	1.85	0.41
22:BA:28:A:C4	22:BA:513:A:C5	3.08	0.41
22:BA:163:C:HO2'	22:BA:164:C:P	2.43	0.41
22:BA:274:C:H2'	22:BA:275:C:O4'	2.19	0.41
22:BA:664:G:H2'	22:BA:665:U:H6	1.85	0.41
22:BA:705:A:C8	22:BA:727:A:C2	3.08	0.41
22:BA:749:A:C6	22:BA:1618:A:C2	3.08	0.41
22:BA:1538:G:N2	22:BA:1539:U:C2	2.88	0.41
22:BA:1538:G:H2'	22:BA:1539:U:C5	2.55	0.41
22:BA:1588:G:C4	22:BA:1589:U:C5	3.08	0.41
22:BA:2149:U:HO2'	22:BA:2150:C:C4'	2.33	0.41
22:BA:2231:U:P	45:BX:29:LEU:CD2	3.08	0.41
22:BA:2277:G:H2'	22:BA:2278:A:H5''	2.03	0.41
22:BA:2348:U:C2'	22:BA:2349:G:H5'	2.50	0.41
24:BC:61:TYR:HD2	24:BC:85:ASN:HD22	1.68	0.41
24:BC:141:HIS:HB2	24:BC:190:THR:HB	2.01	0.41
24:BC:219:VAL:O	24:BC:224:MET:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BC:234:GLY:C	24:BC:236:GLY:H	2.29	0.41
25:BD:20:VAL:CG1	25:BD:21:SER:N	2.83	0.41
25:BD:142:VAL:CB	25:BD:143:PRO:CD	2.98	0.41
26:BE:111:GLU:HG2	26:BE:114:ARG:HH11	1.76	0.41
26:BE:175:ILE:HD11	26:BE:180:LEU:HD11	2.03	0.41
28:BG:33:THR:H	28:BG:34:ARG:HH11	1.63	0.41
29:BH:117:LEU:HA	29:BH:118:PRO:HD2	1.91	0.41
29:BH:134:VAL:HG21	29:BH:139:PHE:CA	2.50	0.41
30:BI:56:VAL:CG2	30:BI:57:VAL:N	2.83	0.41
30:BI:93:ASN:OD1	30:BI:136:GLY:HA2	2.20	0.41
30:BI:135:MET:HE3	30:BI:135:MET:HB3	1.91	0.41
31:BJ:88:THR:HG22	31:BJ:91:GLU:CD	2.45	0.41
33:BL:55:MET:HE2	33:BL:55:MET:HA	2.00	0.41
33:BL:101:ILE:HA	33:BL:101:ILE:HD12	1.61	0.41
35:BN:49:GLU:N	35:BN:50:PRO:CD	2.84	0.41
36:BO:115:LEU:HA	36:BO:115:LEU:HD12	1.65	0.41
43:BV:40:ILE:CG2	43:BV:42:LEU:HD21	2.50	0.41
46:BY:26:PHE:CE1	46:BY:30:MET:HG3	2.55	0.41
48:B0:11:LYS:HD2	48:B0:11:LYS:HA	1.83	0.41
52:B4:36:ARG:O	52:B4:37:GLN:C	2.63	0.41
53:CA:40:C:H2'	53:CA:41:G:O4'	2.20	0.41
53:CA:53:A:N1	53:CA:359:G:C6	2.88	0.41
53:CA:144:G:C6	53:CA:145:G:C5	3.08	0.41
53:CA:179:A:H2'	53:CA:180:U:C6	2.55	0.41
53:CA:263:A:OP1	20:CT:73:ARG:NH1	2.53	0.41
53:CA:319:G:H5'	53:CA:1468:A:H4'	2.02	0.41
53:CA:375:U:O3'	56:CP:6:LEU:HD12	2.19	0.41
53:CA:579:A:C2	53:CA:763:G:C4	3.09	0.41
53:CA:859:G:H2'	53:CA:860:A:H8	1.84	0.41
53:CA:878:A:C6	53:CA:879:C:C4	3.07	0.41
53:CA:879:C:C2'	53:CA:880:C:O5'	2.68	0.41
53:CA:885:G:O2'	53:CA:886:G:C5'	2.68	0.41
53:CA:977:A:O2'	53:CA:978:A:H5''	2.19	0.41
53:CA:1151:A:N6	53:CA:1152:A:H62	2.18	0.41
53:CA:1366:C:O2'	53:CA:1367:C:C5'	2.68	0.41
53:CA:1465:A:H2'	53:CA:1466:C:C6	2.54	0.41
2:CB:66:ILE:HG21	2:CB:68:PHE:CE1	2.55	0.41
4:CD:161:ALA:O	4:CD:164:ARG:HB2	2.21	0.41
5:CE:38:VAL:CG1	5:CE:39:GLY:H	2.33	0.41
6:CF:18:VAL:N	6:CF:19:PRO:HD2	2.34	0.41
6:CF:22:ILE:HG21	6:CF:39:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:94:VAL:HG21	8:CH:101:ALA:HB2	2.02	0.41
10:CJ:90:LEU:O	10:CJ:90:LEU:CD2	2.68	0.41
11:CK:126:ARG:O	21:CU:33:ARG:CZ	2.69	0.41
12:CL:88:ASP:C	12:CL:89:LEU:HD22	2.45	0.41
12:CL:113:ARG:O	12:CL:114:SER:C	2.62	0.41
55:CM:68:LEU:O	55:CM:68:LEU:HD23	2.20	0.41
22:DA:37:C:O2'	26:DE:45:ALA:CB	2.68	0.41
22:DA:107:G:H4'	22:DA:294:A:OP1	2.20	0.41
22:DA:159:G:O2'	22:DA:160:A:C5'	2.66	0.41
22:DA:223:A:C5	22:DA:422:A:N7	2.88	0.41
22:DA:299:A:N3	22:DA:319:G:O2'	2.40	0.41
22:DA:319:G:O6	22:DA:333:G:C6	2.73	0.41
22:DA:455:C:C3'	22:DA:456:C:H5'	2.50	0.41
22:DA:470:A:C6	22:DA:471:A:C6	3.08	0.41
22:DA:585:G:H2'	22:DA:1254:A:N6	2.34	0.41
22:DA:780:G:N1	22:DA:782:A:C2	2.88	0.41
22:DA:859:G:H22	22:DA:916:G:C2'	2.31	0.41
22:DA:965:C:H5''	62:DA:3347:HOH:O	2.20	0.41
22:DA:1064:C:H2'	22:DA:1065:U:H6	1.85	0.41
22:DA:1656:C:O2'	22:DA:1657:U:H5'	2.20	0.41
22:DA:1735:A:C4	22:DA:1736:U:C5	3.08	0.41
22:DA:1805:A:N3	24:DC:49:THR:CG2	2.83	0.41
22:DA:1829:A:O2'	24:DC:14:HIS:CE1	2.73	0.41
22:DA:1869:G:N1	22:DA:1873:G:C6	2.87	0.41
22:DA:2024:G:O2'	22:DA:2025:C:H5'	2.19	0.41
22:DA:2040:G:C4	22:DA:2041:U:C6	3.08	0.41
22:DA:2221:G:C5	22:DA:2222:C:C5	3.08	0.41
22:DA:2261:C:C2	22:DA:2280:G:C2	3.08	0.41
22:DA:2391:G:O2'	22:DA:2392:A:O5'	2.38	0.41
22:DA:2454:G:C2	22:DA:2499:C:N3	2.88	0.41
22:DA:2470:G:C6	22:DA:2481:G:C2	3.09	0.41
22:DA:2537:U:O5'	22:DA:2537:U:H6	2.03	0.41
22:DA:2798:U:C5'	22:DA:2799:A:OP1	2.67	0.41
22:DA:2867:G:N3	22:DA:2867:G:C2'	2.83	0.41
24:DC:66:PHE:CZ	24:DC:155:ARG:NH1	2.88	0.41
24:DC:259:ASN:C	24:DC:261:ARG:N	2.77	0.41
24:DC:264:LYS:HG3	24:DC:265:PHE:CD2	2.55	0.41
25:DD:172:VAL:CG2	25:DD:194:PRO:HD3	2.50	0.41
28:DG:86:LEU:HD12	28:DG:132:LEU:CD1	2.50	0.41
28:DG:95:ALA:HB1	28:DG:124:CYS:SG	2.60	0.41
29:DH:5:LEU:HD22	29:DH:9:VAL:HG21	2.00	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DH:93:SER:CA	29:DH:121:VAL:HG21	2.49	0.41
30:DI:140:GLU:O	30:DI:141:ASP:C	2.63	0.41
34:DM:26:VAL:HA	34:DM:66:ARG:NH2	2.35	0.41
36:DO:67:ASN:O	36:DO:68:LYS:C	2.63	0.41
38:DQ:18:LYS:C	38:DQ:20:ALA:H	2.28	0.41
39:DR:39:LEU:HD22	39:DR:53:PHE:HE1	1.84	0.41
40:DS:29:VAL:HG11	40:DS:55:ILE:CG1	2.50	0.41
41:DT:53:VAL:CG2	41:DT:92:ASN:HD22	2.33	0.41
42:DU:4:ILE:H	42:DU:4:ILE:HG13	1.63	0.41
42:DU:48:VAL:HA	42:DU:49:PRO:HD3	1.89	0.41
42:DU:59:GLU:C	42:DU:60:LYS:HD2	2.44	0.41
48:D0:53:VAL:O	48:D0:54:ILE:C	2.63	0.41
50:D2:6:GLN:HA	50:D2:7:PRO:HD2	1.78	0.41
1:AA:111:G:C6	1:AA:330:C:N4	2.88	0.41
1:AA:137:U:H1'	1:AA:227:G:N2	2.35	0.41
1:AA:596:A:N6	1:AA:645:G:C2	2.88	0.41
1:AA:722:G:H1	1:AA:733:G:H1	1.67	0.41
1:AA:868:C:N4	1:AA:869:G:C2	2.89	0.41
1:AA:978:A:H5'	1:AA:1224:U:O4	2.20	0.41
1:AA:1046:A:H2'	1:AA:1047:G:H8	1.84	0.41
1:AA:1154:G:N1	1:AA:1155:A:C5	2.89	0.41
1:AA:1216:A:C6	1:AA:1217:C:N4	2.89	0.41
1:AA:1250:A:O3'	9:AI:68:GLY:HA2	2.21	0.41
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.84	0.41
1:AA:1410:A:C4	1:AA:1491:G:N2	2.88	0.41
2:AB:9:LEU:HD12	2:AB:42:LEU:CD1	2.20	0.41
2:AB:138:ARG:HA	2:AB:141:GLU:OE2	2.20	0.41
2:AB:140:LEU:O	2:AB:141:GLU:C	2.63	0.41
3:AC:128:MET:HE2	3:AC:128:MET:HB2	1.69	0.41
5:AE:71:ILE:HG12	5:AE:72:ASN:N	2.36	0.41
5:AE:132:PRO:C	5:AE:134:ASN:H	2.28	0.41
9:AI:45:MET:O	9:AI:45:MET:HG2	2.21	0.41
13:AM:3:ILE:O	13:AM:5:GLY:N	2.53	0.41
14:AN:40:ARG:HH12	14:AN:44:VAL:CB	2.32	0.41
15:AO:65:LEU:N	15:AO:65:LEU:CD2	2.84	0.41
17:AQ:12:VAL:HG21	17:AQ:21:VAL:HG22	2.02	0.41
22:BA:17:G:H2'	22:BA:18:U:C6	2.55	0.41
22:BA:43:G:C5'	22:BA:43:G:C8	3.03	0.41
22:BA:287:G:H2'	22:BA:288:U:C6	2.55	0.41
22:BA:581:C:O2	22:BA:582:A:C8	2.74	0.41
22:BA:706:A:H2'	22:BA:707:G:O4'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:784:G:H5''	24:BC:225:ASN:HD21	1.85	0.41
22:BA:915:C:C6	22:BA:915:C:C5'	2.99	0.41
22:BA:1061:U:H6	22:BA:1070:A:O4'	2.03	0.41
22:BA:1070:A:N1	22:BA:1097:U:H4'	2.35	0.41
22:BA:1140:C:OP2	31:BJ:68:LYS:NZ	2.44	0.41
22:BA:1340:U:C5	22:BA:1603:A:C8	3.08	0.41
22:BA:1343:G:O4'	22:BA:1597:A:H2'	2.19	0.41
22:BA:1858:A:C6	22:BA:1885:A:C8	3.08	0.41
22:BA:2280:G:C2'	22:BA:2281:A:H5'	2.50	0.41
22:BA:2297:A:O2'	22:BA:2298:A:H5'	2.20	0.41
22:BA:2383:G:H2'	22:BA:2384:U:C6	2.55	0.41
22:BA:2403:C:C2	22:BA:2404:U:C6	3.08	0.41
22:BA:2635:A:H2'	22:BA:2636:C:O5'	2.20	0.41
22:BA:2741:A:H2'	22:BA:2742:G:O4'	2.19	0.41
22:BA:2766:A:H2'	22:BA:2766:A:N3	2.36	0.41
22:BA:2773:C:OP1	25:BD:169:ARG:NE	2.53	0.41
24:BC:79:ARG:NH2	24:BC:81:GLU:OE2	2.53	0.41
25:BD:52:THR:CG2	25:BD:53:GLY:N	2.84	0.41
25:BD:155:VAL:HG13	25:BD:159:LYS:HG3	2.01	0.41
26:BE:36:ALA:O	26:BE:39:ALA:HB3	2.20	0.41
26:BE:85:PHE:O	26:BE:86:ALA:C	2.63	0.41
26:BE:150:THR:HA	26:BE:189:THR:CG2	2.50	0.41
28:BG:139:VAL:C	28:BG:141:GLY:N	2.72	0.41
29:BH:27:ARG:O	29:BH:28:ASN:CG	2.63	0.41
29:BH:125:THR:HG23	29:BH:126:GLY:N	2.29	0.41
29:BH:131:SER:O	29:BH:132:PHE:HB3	2.20	0.41
31:BJ:141:ASP:O	31:BJ:142:ILE:HB	2.20	0.41
34:BM:46:ILE:HD12	34:BM:47:GLU:CA	2.50	0.41
37:BP:33:GLU:OE1	37:BP:33:GLU:C	2.63	0.41
37:BP:50:ARG:HG3	37:BP:50:ARG:H	1.61	0.41
42:BU:66:VAL:C	42:BU:68:ASN:H	2.27	0.41
43:BV:62:THR:HA	43:BV:71:LYS:HA	2.01	0.41
43:BV:81:PRO:HB2	43:BV:82:TYR:HD2	1.85	0.41
44:BW:23:LYS:CD	44:BW:24:ARG:H	2.19	0.41
46:BY:39:GLN:O	46:BY:42:LEU:HB2	2.20	0.41
53:CA:68:G:C2'	53:CA:69:G:O5'	2.68	0.41
53:CA:239:U:H4'	53:CA:239:U:OP1	2.20	0.41
53:CA:283:U:H2'	53:CA:284:C:H6	1.84	0.41
53:CA:355:C:N4	53:CA:356:A:H62	2.18	0.41
53:CA:411:A:C6	53:CA:429:U:C5	3.08	0.41
53:CA:939:G:C6	53:CA:940:C:N4	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1001:C:H2'	53:CA:1002:G:O4'	2.20	0.41
53:CA:1184:G:O2'	53:CA:1185:G:H8	2.03	0.41
53:CA:1262:C:C4	53:CA:1263:C:C5	3.08	0.41
53:CA:1333:A:H2'	53:CA:1334:G:O4'	2.20	0.41
53:CA:1356:G:N2	53:CA:1367:C:C2	2.89	0.41
53:CA:1367:C:H5'	10:CJ:62:ARG:NH1	2.34	0.41
53:CA:1381:U:O2'	53:CA:1382:C:O5'	2.37	0.41
53:CA:1385:G:C4	53:CA:1386:G:C8	3.08	0.41
53:CA:1447:A:P	53:CA:1448:C:H5	2.43	0.41
2:CB:156:LEU:HD23	2:CB:156:LEU:H	1.85	0.41
2:CB:191:ASP:HA	2:CB:192:PRO:HD2	1.82	0.41
3:CC:18:ASN:ND2	3:CC:53:ARG:NH1	2.59	0.41
4:CD:114:ARG:HE	4:CD:114:ARG:HB2	1.62	0.41
54:CG:34:LYS:NZ	54:CG:34:LYS:CB	2.84	0.41
8:CH:90:GLU:O	8:CH:91:LEU:C	2.63	0.41
12:CL:71:HIS:ND1	12:CL:73:LEU:N	2.68	0.41
56:CP:5:ARG:O	56:CP:19:VAL:HA	2.21	0.41
21:CU:3:ILE:CG2	21:CU:18:PHE:HD1	2.34	0.41
22:DA:50:U:OP1	22:DA:50:U:C6	2.74	0.41
22:DA:67:U:C2	22:DA:68:G:C8	3.08	0.41
22:DA:69:C:H2'	22:DA:70:G:C8	2.55	0.41
22:DA:75:G:O2'	22:DA:76:C:O5'	2.38	0.41
22:DA:87:U:C2'	22:DA:88:G:OP1	2.65	0.41
22:DA:89:A:C2	22:DA:90:U:C2	3.09	0.41
22:DA:139:U:H3	41:DT:1:MET:HA	1.85	0.41
22:DA:240:C:OP2	22:DA:241:A:H3'	2.20	0.41
22:DA:447:A:C5	22:DA:473:G:C5	3.08	0.41
22:DA:962:G:H3'	22:DA:962:G:P	2.60	0.41
22:DA:1077:A:O2'	22:DA:1078:U:C5'	2.68	0.41
22:DA:1091:G:H2'	22:DA:1092:C:C6	2.54	0.41
22:DA:1206:G:O2'	22:DA:1207:C:O5'	2.37	0.41
22:DA:1255:U:H5'	22:DA:2502:G:H22	1.85	0.41
22:DA:1275:A:C8	35:DN:16:HIS:CD2	3.08	0.41
22:DA:1281:G:H2'	22:DA:1282:U:H5'	2.02	0.41
22:DA:1317:G:N2	22:DA:1336:A:N3	2.68	0.41
22:DA:1324:G:H1'	22:DA:1616:A:H61	1.81	0.41
22:DA:1446:C:C4	22:DA:1447:C:C4	3.08	0.41
22:DA:1545:A:O2'	22:DA:1546:G:H5'	2.21	0.41
22:DA:1558:C:H1'	22:DA:1560:G:C8	2.54	0.41
22:DA:1800:C:C5'	24:DC:145:MET:HE1	2.51	0.41
22:DA:2338:C:O2'	22:DA:2339:C:P	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2574:G:N2	25:DD:147:GLY:O	2.50	0.41
22:DA:2626:C:H2'	22:DA:2627:G:O4'	2.21	0.41
22:DA:2756:U:O4'	22:DA:2757:A:H5''	2.19	0.41
57:DB:17:C:N3	57:DB:68:C:N3	2.69	0.41
57:DB:24:G:H5'	57:DB:25:U:C4	2.55	0.41
57:DB:57:A:N6	58:DF:25:MET:HG2	2.35	0.41
57:DB:69:G:C2'	57:DB:70:C:H6	2.34	0.41
24:DC:12:ARG:O	24:DC:13:ARG:C	2.63	0.41
24:DC:152:GLN:H	24:DC:152:GLN:NE2	2.02	0.41
26:DE:118:LEU:HD21	26:DE:188:MET:HE1	2.02	0.41
58:DF:49:LEU:HD22	58:DF:49:LEU:N	2.25	0.41
58:DF:135:ILE:HD12	58:DF:135:ILE:H	1.83	0.41
28:DG:152:ARG:HA	28:DG:153:PRO:HD3	1.84	0.41
29:DH:133:GLN:NE2	29:DH:139:PHE:CE2	2.87	0.41
30:DI:72:THR:HA	30:DI:73:PRO:HD2	1.87	0.41
31:DJ:99:ARG:CZ	31:DJ:99:ARG:CB	2.99	0.41
33:DL:120:VAL:CG1	33:DL:121:THR:H	2.33	0.41
34:DM:133:LYS:NZ	34:DM:133:LYS:CB	2.84	0.41
36:DO:11:ALA:HB2	36:DO:96:GLY:H	1.82	0.41
39:DR:79:ARG:O	39:DR:80:ARG:CB	2.69	0.41
44:DW:23:LYS:CD	44:DW:24:ARG:H	2.26	0.41
51:D3:41:ARG:NH2	51:D3:41:ARG:CB	2.83	0.41
1:AA:201:G:N3	1:AA:202:G:H1'	2.35	0.41
1:AA:229:U:H2'	1:AA:230:G:O4'	2.20	0.41
1:AA:244:U:O4	1:AA:906:A:H1'	2.20	0.41
1:AA:450:G:C2'	1:AA:451:A:OP1	2.69	0.41
1:AA:568:G:C2	1:AA:883:C:C2	3.08	0.41
1:AA:585:G:N3	1:AA:879:C:H4'	2.34	0.41
1:AA:706:A:H4'	11:AK:30:ILE:HG12	2.02	0.41
1:AA:1125:U:HO2'	1:AA:1126:U:P	2.43	0.41
1:AA:1190:G:OP1	3:AC:4:VAL:HG12	2.20	0.41
1:AA:1316:G:C5'	1:AA:1317:C:OP2	2.69	0.41
1:AA:1485:U:O5'	1:AA:1485:U:H6	2.03	0.41
1:AA:1507:A:C6	1:AA:1530:G:C5	3.08	0.41
2:AB:141:GLU:CA	2:AB:144:GLU:HB2	2.47	0.41
2:AB:206:ILE:HD13	2:AB:207:ARG:N	2.35	0.41
3:AC:5:HIS:HA	3:AC:6:PRO:HD2	1.81	0.41
4:AD:109:THR:HG22	4:AD:112:GLU:CB	2.47	0.41
4:AD:174:ALA:C	4:AD:176:LYS:N	2.78	0.41
5:AE:15:ILE:HG22	5:AE:16:ALA:N	2.36	0.41
5:AE:96:GLN:HA	5:AE:97:PRO:HD2	1.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AF:20:GLY:O	6:AF:24:ARG:HD3	2.20	0.41
6:AF:62:MET:HG3	6:AF:64:VAL:HG23	2.02	0.41
8:AH:110:MET:H	8:AH:110:MET:HG3	1.75	0.41
11:AK:97:ARG:C	11:AK:99:LEU:N	2.77	0.41
11:AK:125:LYS:O	11:AK:126:ARG:CG	2.68	0.41
13:AM:15:VAL:HA	13:AM:33:LEU:HD11	2.02	0.41
15:AO:20:ASP:CG	15:AO:20:ASP:O	2.62	0.41
18:AR:22:TYR:CZ	18:AR:23:LYS:HE3	2.55	0.41
22:BA:109:C:C2'	22:BA:110:G:O5'	2.69	0.41
22:BA:794:A:H2'	22:BA:795:C:H6	1.77	0.41
22:BA:962:G:H2'	22:BA:963:U:C6	2.55	0.41
22:BA:1067:A:OP2	22:BA:1067:A:H8	2.03	0.41
22:BA:1105:U:C2'	22:BA:1106:G:H8	2.28	0.41
22:BA:1184:U:O5'	22:BA:1184:U:H6	2.04	0.41
22:BA:1228:G:H2'	22:BA:1229:C:C6	2.55	0.41
22:BA:1274:A:OP1	22:BA:1646:C:N4	2.46	0.41
22:BA:1383:A:H2	22:BA:1405:U:O2	2.02	0.41
22:BA:1387:A:C6	22:BA:1401:G:N1	2.88	0.41
22:BA:1585:C:H2'	22:BA:1586:A:C4'	2.50	0.41
22:BA:1812:U:H2'	22:BA:1813:G:C8	2.55	0.41
22:BA:1833:C:C5	22:BA:1834:U:C5	3.08	0.41
22:BA:1858:A:O2'	22:BA:1859:U:O4'	2.33	0.41
22:BA:2055:C:H5'	22:BA:2056:G:O5'	2.20	0.41
22:BA:2140:G:C2	22:BA:2141:G:C4	3.08	0.41
22:BA:2242:G:H2'	22:BA:2243:U:O4'	2.20	0.41
23:BB:30:C:C3'	23:BB:31:C:C5'	2.98	0.41
24:BC:105:ALA:O	24:BC:195:GLY:HA3	2.19	0.41
24:BC:159:THR:N	24:BC:194:VAL:HG12	2.36	0.41
24:BC:237:ARG:O	24:BC:238:ASN:HB2	2.19	0.41
24:BC:263:ASP:O	24:BC:264:LYS:C	2.63	0.41
27:BF:162:ASP:OD1	27:BF:162:ASP:N	2.43	0.41
31:BJ:38:GLY:C	31:BJ:40:HIS:N	2.78	0.41
32:BK:105:ARG:NE	32:BK:106:GLU:OE2	2.54	0.41
32:BK:113:MET:O	32:BK:116:ILE:N	2.51	0.41
34:BM:46:ILE:CG1	34:BM:47:GLU:N	2.83	0.41
34:BM:73:ILE:CG2	34:BM:91:TYR:CE1	3.03	0.41
35:BN:16:HIS:O	35:BN:17:ARG:C	2.60	0.41
37:BP:32:VAL:O	37:BP:33:GLU:O	2.37	0.41
38:BQ:51:GLN:NE2	38:BQ:55:GLN:HE21	2.19	0.41
41:BT:7:LEU:O	41:BT:7:LEU:HG	2.19	0.41
42:BU:11:ILE:O	42:BU:11:ILE:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BV:29:ILE:CG1	43:BV:30:ILE:N	2.79	0.41
45:BX:38:TRP:CZ3	45:BX:44:ARG:C	2.99	0.41
53:CA:16:A:C5	53:CA:17:U:C5	3.09	0.41
53:CA:46:G:O2'	53:CA:365:U:H1'	2.20	0.41
53:CA:77:A:H8	53:CA:77:A:OP2	2.03	0.41
53:CA:158:G:C5	53:CA:159:G:N7	2.89	0.41
53:CA:186:C:O2'	53:CA:187:G:H5'	2.20	0.41
53:CA:557:G:C6	53:CA:558:G:C2	3.08	0.41
53:CA:587:G:OP1	8:CH:80:PRO:HB3	2.20	0.41
53:CA:603:U:H2'	53:CA:604:G:C8	2.56	0.41
53:CA:650:G:N3	53:CA:650:G:H2'	2.36	0.41
53:CA:680:C:C4	53:CA:681:A:N7	2.89	0.41
53:CA:685:G:O4'	11:CK:40:ALA:HB3	2.20	0.41
53:CA:731:G:OP1	53:CA:766:A:H1'	2.20	0.41
53:CA:778:G:O2'	11:CK:121:ARG:O	2.38	0.41
53:CA:951:G:N1	53:CA:1231:G:C6	2.89	0.41
53:CA:995:C:O2'	53:CA:996:A:H5''	2.21	0.41
53:CA:1051:C:O2'	53:CA:1052:U:C6	2.74	0.41
53:CA:1238:A:N6	53:CA:1302:C:N4	2.69	0.41
53:CA:1266:G:H3'	53:CA:1266:G:C8	2.56	0.41
53:CA:1480:A:H2'	53:CA:1481:U:O4'	2.21	0.41
2:CB:91:VAL:HG11	2:CB:95:TRP:HD1	1.85	0.41
3:CC:128:MET:O	3:CC:129:PHE:C	2.63	0.41
4:CD:67:LEU:HA	4:CD:67:LEU:HD12	1.76	0.41
5:CE:18:ASN:OD1	5:CE:33:THR:CG2	2.68	0.41
54:CG:20:GLU:O	54:CG:23:ALA:HB3	2.20	0.41
54:CG:72:VAL:O	54:CG:140:VAL:HG12	2.20	0.41
9:CI:83:THR:C	9:CI:85:ALA:H	2.28	0.41
9:CI:117:LEU:HD23	9:CI:123:ARG:HD3	2.01	0.41
10:CJ:5:ARG:HG3	10:CJ:79:PRO:HG3	1.99	0.41
12:CL:35:ARG:HA	12:CL:35:ARG:HD3	1.84	0.41
12:CL:113:ARG:HD2	12:CL:118:VAL:HG12	2.02	0.41
55:CM:82:LEU:HB2	19:CS:73:PHE:HE2	1.85	0.41
14:CN:52:ARG:HH21	14:CN:58:ARG:NE	2.18	0.41
15:CO:54:GLY:O	15:CO:58:MET:HG3	2.20	0.41
21:CU:38:GLU:C	21:CU:40:PRO:HD2	2.44	0.41
22:DA:230:G:O2'	22:DA:231:A:O5'	2.38	0.41
22:DA:302:C:O2'	22:DA:303:G:C5'	2.68	0.41
22:DA:352:A:H2'	22:DA:353:C:O4'	2.20	0.41
22:DA:467:G:O3'	22:DA:797:G:H5'	2.20	0.41
22:DA:911:A:H8	22:DA:911:A:O5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:936:A:C6	22:DA:937:C:C4	3.08	0.41
22:DA:965:C:H4'	22:DA:2273:A:H1'	2.03	0.41
22:DA:976:G:H5'	22:DA:1156:A:N6	2.35	0.41
22:DA:996:A:O2'	22:DA:997:G:H5'	2.20	0.41
22:DA:1020:A:H2	22:DA:1141:U:H2'	1.84	0.41
22:DA:1027:A:N3	22:DA:2488:G:H5''	2.35	0.41
22:DA:1071:G:C5	22:DA:1089:A:C5	3.09	0.41
22:DA:1123:C:H2'	22:DA:1124:G:H8	1.85	0.41
22:DA:1287:A:H5'	35:DN:103:ARG:NH1	2.35	0.41
22:DA:1298:C:H2'	22:DA:1299:G:O4'	2.20	0.41
22:DA:1312:U:O2'	22:DA:1313:U:P	2.78	0.41
22:DA:1317:G:C5	22:DA:1318:U:C4	3.08	0.41
22:DA:1415:U:H5'	22:DA:1416:G:OP1	2.20	0.41
22:DA:1566:A:C2	24:DC:212:TRP:CG	3.08	0.41
22:DA:1759:A:O2'	22:DA:1760:C:C5'	2.65	0.41
22:DA:1792:G:C5'	24:DC:203:VAL:CG2	2.99	0.41
22:DA:1792:G:H5'	24:DC:203:VAL:HG22	2.01	0.41
22:DA:1803:A:H2	22:DA:1823:G:H1'	1.83	0.41
22:DA:1838:C:C4	22:DA:1899:A:C2	3.08	0.41
22:DA:1984:G:C6	22:DA:1985:C:C4	3.08	0.41
22:DA:2136:G:C2'	22:DA:2137:U:H6	2.28	0.41
22:DA:2230:G:H1'	45:DX:31:ASN:HB3	2.01	0.41
22:DA:2361:G:H2'	22:DA:2362:C:C6	2.52	0.41
22:DA:2386:A:C2	44:DW:38:ARG:HG2	2.53	0.41
22:DA:2545:G:O2'	22:DA:2565:A:N1	2.50	0.41
22:DA:2677:G:H2'	22:DA:2678:C:H6	1.85	0.41
22:DA:2822:G:C2'	22:DA:2823:A:H5''	2.50	0.41
22:DA:2869:G:N7	22:DA:2870:C:C5	2.89	0.41
22:DA:2891:U:H2'	22:DA:2892:G:H5'	2.01	0.41
57:DB:57:A:C6	58:DF:25:MET:CG	2.97	0.41
24:DC:73:ILE:O	24:DC:116:GLN:HG2	2.20	0.41
24:DC:156:SER:O	24:DC:157:ALA:C	2.64	0.41
24:DC:216:ARG:HH11	24:DC:216:ARG:HG3	1.84	0.41
26:DE:162:ARG:C	26:DE:164:LEU:H	2.27	0.41
58:DF:11:VAL:O	58:DF:12:VAL:HB	2.20	0.41
28:DG:154:GLU:C	28:DG:156:TYR:N	2.77	0.41
30:DI:27:LEU:HD13	30:DI:32:VAL:HG11	2.02	0.41
32:DK:35:VAL:HA	32:DK:62:VAL:HG12	2.01	0.41
35:DN:96:ARG:CZ	35:DN:96:ARG:HB2	2.49	0.41
36:DO:80:GLU:O	36:DO:84:GLU:N	2.53	0.41
37:DP:24:THR:O	37:DP:44:GLY:O	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DR:37:GLU:C	39:DR:53:PHE:CD1	2.99	0.41
46:DY:55:THR:HG22	46:DY:56:LEU:HD22	2.03	0.41
50:D2:34:ARG:C	50:D2:42:LEU:HD11	2.45	0.41
1:AA:81:A:O2'	1:AA:89:U:O2	2.35	0.41
1:AA:267:C:H2'	1:AA:268:U:C6	2.56	0.41
1:AA:397:A:C6	1:AA:548:G:N7	2.89	0.41
1:AA:544:G:C6	1:AA:545:C:C4	3.09	0.41
1:AA:859:G:OP2	1:AA:869:G:N1	2.50	0.41
1:AA:865:A:H2	1:AA:918:A:H4'	1.85	0.41
1:AA:1031:C:C2'	1:AA:1032:G:OP2	2.68	0.41
1:AA:1060:U:O2'	10:AJ:54:SER:HB2	2.21	0.41
1:AA:1164:G:N2	1:AA:1173:U:C2	2.89	0.41
1:AA:1269:A:C2	1:AA:1312:G:N3	2.81	0.41
1:AA:1277:C:O2'	1:AA:1279:G:C8	2.53	0.41
1:AA:1356:G:C2	1:AA:1367:C:O2	2.73	0.41
1:AA:1402:C:O2	1:AA:1500:A:N1	2.53	0.41
3:AC:81:GLU:O	3:AC:84:GLU:HB3	2.20	0.41
4:AD:2:ARG:HB2	4:AD:4:LEU:CD1	2.50	0.41
4:AD:150:LYS:O	4:AD:150:LYS:HG3	2.20	0.41
6:AF:47:LEU:CD1	6:AF:51:ILE:HG22	2.51	0.41
7:AG:145:GLU:HA	7:AG:148:LYS:HB2	2.02	0.41
11:AK:113:THR:HA	11:AK:114:PRO:HD3	1.89	0.41
11:AK:124:LYS:O	11:AK:125:LYS:O	2.39	0.41
15:AO:55:LEU:HA	15:AO:58:MET:HG3	2.02	0.41
17:AQ:33:TYR:O	17:AQ:35:LYS:N	2.52	0.41
22:BA:207:A:H2'	22:BA:208:C:O4'	2.21	0.41
22:BA:242:G:H5''	51:B3:63:TYR:CE2	2.55	0.41
22:BA:478:A:N6	22:BA:502:A:H62	2.17	0.41
22:BA:527:C:H2'	22:BA:2779:U:O2'	2.20	0.41
22:BA:547:A:N7	22:BA:548:G:N3	2.68	0.41
22:BA:570:G:H2'	22:BA:2030:A:C8	2.55	0.41
22:BA:687:C:H5'	50:B2:4:THR:O	2.20	0.41
22:BA:745:G:C3'	22:BA:746:U:H5'	2.50	0.41
22:BA:863:A:C2	22:BA:864:G:C4	3.09	0.41
22:BA:863:A:H2'	22:BA:864:G:O4'	2.20	0.41
22:BA:983:A:N6	22:BA:984:A:C2	2.88	0.41
22:BA:1022:G:C5	22:BA:1140:C:C4	3.09	0.41
22:BA:1054:A:C6	22:BA:1106:G:O6	2.74	0.41
22:BA:1065:U:H5	22:BA:1074:G:H21	1.68	0.41
22:BA:1163:G:C2	22:BA:1164:C:C5	3.09	0.41
22:BA:1277:G:C5'	35:BN:20:MET:HE1	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1455:G:C8	22:BA:1455:G:C5'	2.96	0.41
22:BA:1804:C:H6	22:BA:1804:C:O5'	2.03	0.41
22:BA:1858:A:O2'	22:BA:1859:U:O5'	2.38	0.41
22:BA:2071:A:H2'	22:BA:2072:C:C6	2.55	0.41
22:BA:2142:A:H2'	22:BA:2143:C:OP2	2.21	0.41
22:BA:2243:U:O2	22:BA:2434:A:C2	2.74	0.41
22:BA:2264:C:H41	44:BW:11:ASN:HD21	1.67	0.41
22:BA:2421:G:N7	51:B3:30:HIS:CD2	2.89	0.41
22:BA:2665:A:N3	22:BA:2665:A:H2'	2.35	0.41
22:BA:2889:C:C2'	22:BA:2890:G:H5'	2.50	0.41
23:BB:73:A:C4	23:BB:104:A:C2	3.08	0.41
26:BE:37:ALA:C	26:BE:39:ALA:N	2.76	0.41
26:BE:44:ARG:HH21	26:BE:44:ARG:CG	2.33	0.41
26:BE:124:PHE:CZ	26:BE:148:ILE:CD1	2.97	0.41
27:BF:97:GLU:O	27:BF:101:ARG:HG2	2.20	0.41
27:BF:151:LEU:CD1	27:BF:152:ASP:N	2.76	0.41
28:BG:32:LEU:HB2	28:BG:34:ARG:CZ	2.50	0.41
30:BI:78:LEU:HD13	30:BI:108:ILE:CG2	2.46	0.41
33:BL:67:THR:HG22	33:BL:68:SER:N	2.35	0.41
34:BM:25:ASP:N	34:BM:25:ASP:OD2	2.53	0.41
37:BP:13:LYS:HE3	37:BP:76:HIS:C	2.45	0.41
38:BQ:40:LYS:HA	38:BQ:43:GLN:CG	2.50	0.41
39:BR:39:LEU:CA	39:BR:49:ILE:HG23	2.50	0.41
42:BU:27:VAL:CG2	42:BU:28:LEU:N	2.83	0.41
52:B4:24:ARG:HG2	52:B4:24:ARG:HH21	1.86	0.41
53:CA:106:C:O2'	53:CA:107:G:H5'	2.20	0.41
53:CA:254:G:H1'	17:CQ:16:MET:HB3	2.02	0.41
53:CA:277:C:O2'	53:CA:278:G:O4'	2.34	0.41
53:CA:704:A:C2	53:CA:705:G:C4	3.09	0.41
53:CA:812:G:N3	53:CA:812:G:H2'	2.35	0.41
53:CA:900:A:O2'	53:CA:901:A:H5'	2.21	0.41
53:CA:1135:U:O2	53:CA:1135:U:H2'	2.19	0.41
53:CA:1137:C:O2'	53:CA:1138:G:N2	2.54	0.41
2:CB:26:MET:SD	2:CB:192:PRO:HD3	2.60	0.41
4:CD:191:SER:O	4:CD:192:ALA:CB	2.69	0.41
5:CE:157:GLY:HA3	8:CH:63:LYS:NZ	2.35	0.41
54:CG:4:ARG:CD	54:CG:5:VAL:H	2.26	0.41
54:CG:22:LEU:CA	54:CG:25:PHE:HB3	2.17	0.41
54:CG:76:SER:HB3	54:CG:85:GLN:CD	2.45	0.41
11:CK:82:GLU:HB3	11:CK:108:ASN:HB3	2.02	0.41
11:CK:84:MET:HG2	11:CK:110:THR:OG1	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CL:2:THR:O	12:CL:3:VAL:C	2.62	0.41
17:CQ:17:GLU:O	17:CQ:18:LYS:HB2	2.20	0.41
19:CS:19:GLU:OE2	19:CS:19:GLU:HA	2.19	0.41
19:CS:46:LEU:HD23	19:CS:46:LEU:N	2.30	0.41
21:CU:18:PHE:C	21:CU:19:LYS:HZ3	2.26	0.41
22:DA:129:C:O2'	22:DA:130:C:H6	2.04	0.41
22:DA:150:U:H2'	22:DA:151:C:C6	2.55	0.41
22:DA:155:A:C6	22:DA:172:A:N6	2.89	0.41
22:DA:183:C:C5	22:DA:184:C:C5	3.08	0.41
22:DA:227:A:C5'	22:DA:229:C:H41	2.32	0.41
22:DA:259:G:C6	22:DA:260:G:C8	3.08	0.41
22:DA:311:A:H61	22:DA:330:A:H5'	1.85	0.41
22:DA:336:C:O2'	22:DA:337:C:H5'	2.21	0.41
22:DA:696:G:C2	22:DA:767:U:O2	2.73	0.41
22:DA:825:A:C2	22:DA:826:U:C2	3.08	0.41
22:DA:827:U:C5	22:DA:2430:A:C5	3.08	0.41
22:DA:873:C:N3	22:DA:905:A:C2	2.88	0.41
22:DA:971:G:OP2	22:DA:974:G:N2	2.53	0.41
22:DA:1028:A:N6	22:DA:1125:G:H2'	2.35	0.41
22:DA:1054:A:N3	22:DA:1055:G:H1'	2.35	0.41
22:DA:1055:G:C5	22:DA:1056:G:C8	3.09	0.41
22:DA:1364:G:C4	22:DA:1368:G:N2	2.88	0.41
22:DA:1499:C:H2'	22:DA:1500:G:C5'	2.49	0.41
22:DA:1612:C:C5'	50:D2:7:PRO:HG3	2.50	0.41
22:DA:1813:G:N2	24:DC:49:THR:HB	2.35	0.41
22:DA:1918:A:C4'	22:DA:1919:A:OP1	2.62	0.41
22:DA:1967:C:H6	22:DA:1967:C:C5'	2.20	0.41
22:DA:2290:G:O2'	22:DA:2381:A:H1'	2.19	0.41
22:DA:2376:A:N3	36:DO:99:TYR:CZ	2.89	0.41
22:DA:2516:A:C4	22:DA:2569:G:N2	2.88	0.41
22:DA:2619:C:O2'	25:DD:155:VAL:HG12	2.21	0.41
22:DA:2687:U:O2'	22:DA:2688:G:H5'	2.20	0.41
22:DA:2725:A:C5	22:DA:2727:A:C5	3.09	0.41
22:DA:2744:G:C6	22:DA:2761:A:C6	3.08	0.41
22:DA:2798:U:H5'	22:DA:2800:A:N6	2.35	0.41
24:DC:120:ASP:O	24:DC:121:ALA:O	2.38	0.41
24:DC:129:LEU:CA	24:DC:188:ARG:HG3	2.49	0.41
24:DC:140:VAL:HG23	24:DC:141:HIS:H	1.85	0.41
26:DE:40:ARG:CZ	26:DE:92:HIS:CD2	3.04	0.41
26:DE:133:LEU:C	26:DE:133:LEU:CD2	2.92	0.41
26:DE:162:ARG:C	26:DE:164:LEU:N	2.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
58:DF:31:GLU:C	58:DF:95:MET:HE1	2.46	0.41
58:DF:45:ASP:C	58:DF:47:LYS:N	2.76	0.41
58:DF:104:THR:N	58:DF:107:VAL:HG22	2.34	0.41
28:DG:1:SER:HB2	28:DG:61:TRP:HE3	1.85	0.41
28:DG:86:LEU:HD12	28:DG:132:LEU:HD11	2.01	0.41
31:DJ:42:ALA:O	31:DJ:44:TYR:N	2.54	0.41
31:DJ:141:ASP:HB2	31:DJ:142:ILE:HD12	2.01	0.41
40:DS:54:ALA:O	40:DS:55:ILE:C	2.63	0.41
41:DT:31:VAL:C	41:DT:32:LEU:HD23	2.45	0.41
42:DU:39:ASN:HB2	42:DU:62:ALA:H	1.86	0.41
43:DV:16:ALA:HB2	43:DV:19:ARG:NH2	2.35	0.41
47:DZ:4:ILE:HG13	47:DZ:44:ARG:HH12	1.85	0.41
48:D0:26:SER:C	48:D0:27:LEU:HD22	2.45	0.41
50:D2:22:MET:HE2	50:D2:22:MET:HB3	1.98	0.41
52:D4:10:LEU:HD12	52:D4:33:HIS:CD2	2.54	0.41
1:AA:184:G:C4	1:AA:185:U:C5	3.08	0.41
1:AA:274:A:H4'	1:AA:275:G:O5'	2.18	0.41
1:AA:370:C:C2	1:AA:371:A:C8	3.08	0.41
1:AA:482:A:H2'	1:AA:483:C:O4'	2.20	0.41
1:AA:528:C:O2'	1:AA:535:A:H2'	2.20	0.41
1:AA:670:G:C2'	1:AA:671:G:O5'	2.69	0.41
1:AA:671:G:N2	1:AA:736:C:C2	2.89	0.41
1:AA:694:A:N1	1:AA:787:A:O2'	2.54	0.41
1:AA:826:C:C5'	8:AH:12:ARG:HE	2.33	0.41
1:AA:859:G:O2'	1:AA:860:A:H5'	2.20	0.41
1:AA:967:C:H1'	9:AI:129:ARG:HH22	1.85	0.41
1:AA:975:A:C4'	1:AA:976:G:C5'	2.86	0.41
1:AA:1111:A:C2'	1:AA:1112:C:C5'	2.98	0.41
2:AB:67:LEU:CD2	2:AB:91:VAL:HG23	2.42	0.41
2:AB:101:THR:N	2:AB:174:GLU:OE1	2.50	0.41
5:AE:43:GLY:O	5:AE:45:VAL:HG23	2.20	0.41
5:AE:110:MET:H	5:AE:113:VAL:HG12	1.86	0.41
5:AE:152:VAL:CG1	5:AE:155:LYS:HZ1	2.29	0.41
6:AF:51:ILE:CD1	6:AF:86:ARG:HG3	2.51	0.41
7:AG:117:LEU:HD23	7:AG:117:LEU:N	2.35	0.41
11:AK:51:PHE:HB2	11:AK:55:ARG:HB3	2.02	0.41
12:AL:81:ILE:HD11	12:AL:94:TYR:CB	2.50	0.41
12:AL:101:LEU:HB3	12:AL:102:ASP:H	1.55	0.41
14:AN:2:LYS:O	14:AN:3:GLN:C	2.64	0.41
17:AQ:51:GLU:O	17:AQ:52:CYS:SG	2.78	0.41
20:AT:32:LYS:O	20:AT:33:LYS:C	2.64	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AT:79:THR:O	20:AT:80:ALA:C	2.63	0.41
21:AU:24:LYS:HG2	21:AU:25:ALA:H	1.85	0.41
22:BA:89:A:C6	22:BA:90:U:C4	3.08	0.41
22:BA:96:C:H4'	46:BY:41:HIS:ND1	2.35	0.41
22:BA:118:A:H1'	22:BA:178:G:O4'	2.19	0.41
22:BA:170:U:H2'	22:BA:171:U:O5'	2.19	0.41
22:BA:263:G:H1'	22:BA:430:A:N3	2.36	0.41
22:BA:289:G:C5	22:BA:290:U:C4	3.09	0.41
22:BA:323:C:C4	22:BA:333:G:C8	3.08	0.41
22:BA:329:G:H4'	22:BA:330:A:OP1	2.20	0.41
22:BA:526:A:O2'	22:BA:2043:C:O2	2.39	0.41
22:BA:587:C:C3'	22:BA:588:U:H5'	2.51	0.41
22:BA:700:G:C6	22:BA:733:G:C2	3.08	0.41
22:BA:727:A:H2'	22:BA:728:G:C8	2.55	0.41
22:BA:958:U:H5''	34:BM:14:LYS:NZ	2.35	0.41
22:BA:996:A:P	38:BQ:91:ARG:HH12	2.44	0.41
22:BA:1277:G:H2'	22:BA:1278:C:C6	2.55	0.41
22:BA:1422:G:H1'	22:BA:1496:A:N1	2.36	0.41
22:BA:1603:A:C2'	22:BA:1604:C:H5'	2.51	0.41
22:BA:1795:C:H2'	22:BA:1796:U:H6	1.86	0.41
22:BA:1853:A:C6	22:BA:1889:A:C5	3.08	0.41
22:BA:1936:A:H4'	22:BA:1937:A:OP2	2.20	0.41
22:BA:2534:A:C2	22:BA:2535:G:H1'	2.56	0.41
22:BA:2849:U:P	37:BP:92:ARG:HH12	2.44	0.41
23:BB:8:C:C2'	23:BB:9:G:O5'	2.69	0.41
24:BC:41:GLY:CA	24:BC:53:ILE:HG21	2.51	0.41
27:BF:46:LYS:H	27:BF:46:LYS:CE	2.33	0.41
27:BF:82:TYR:HA	27:BF:83:PRO:HD2	1.76	0.41
29:BH:21:VAL:CG2	29:BH:22:LYS:N	2.83	0.41
30:BI:57:VAL:HG12	30:BI:58:ILE:N	2.35	0.41
31:BJ:123:LYS:HD2	31:BJ:123:LYS:N	2.36	0.41
34:BM:69:PRO:HB2	34:BM:70:ASP:H	1.65	0.41
35:BN:28:LEU:HD12	35:BN:28:LEU:HA	1.81	0.41
36:BO:11:ALA:HB2	36:BO:96:GLY:CA	2.50	0.41
38:BQ:114:ALA:O	38:BQ:116:LEU:N	2.54	0.41
44:BW:36:ILE:O	44:BW:39:GLN:CD	2.63	0.41
44:BW:53:GLY:C	44:BW:55:ASP:N	2.77	0.41
45:BX:19:HIS:C	45:BX:21:LEU:N	2.79	0.41
53:CA:8:A:C5	4:CD:205:LYS:HG3	2.56	0.41
53:CA:70:U:C2	53:CA:94:G:N7	2.88	0.41
53:CA:155:A:C6	53:CA:167:A:C6	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:155:A:H2'	53:CA:156:C:O4'	2.20	0.41
53:CA:200:G:C2	53:CA:218:U:C2	3.09	0.41
53:CA:212:G:N2	53:CA:213:G:C8	2.88	0.41
53:CA:289:G:C6	53:CA:290:C:N4	2.88	0.41
53:CA:615:G:N2	53:CA:616:G:C4	2.89	0.41
53:CA:722:G:N3	53:CA:722:G:C2'	2.84	0.41
53:CA:734:G:N2	53:CA:735:C:C2	2.88	0.41
53:CA:878:A:C2'	53:CA:879:C:H5'	2.50	0.41
53:CA:892:A:O2'	53:CA:1415:G:H4'	2.21	0.41
53:CA:920:U:C2	53:CA:921:U:C5	3.08	0.41
53:CA:1055:A:C6	53:CA:1206:G:C5	3.08	0.41
53:CA:1081:A:C2'	53:CA:1082:A:H5'	2.51	0.41
53:CA:1386:G:N3	53:CA:1387:G:C8	2.89	0.41
53:CA:1408:A:C2	53:CA:1494:G:C4	3.09	0.41
53:CA:1500:A:OP1	53:CA:1508:A:OP1	2.39	0.41
2:CB:81:ASP:CG	2:CB:82:ALA:N	2.77	0.41
2:CB:111:LYS:C	2:CB:113:LEU:H	2.29	0.41
3:CC:87:ARG:HH11	3:CC:100:ILE:CG2	2.34	0.41
4:CD:145:ARG:HG3	4:CD:146:GLU:N	2.35	0.41
5:CE:74:ALA:O	5:CE:75:LEU:CB	2.55	0.41
5:CE:114:LEU:HD23	5:CE:119:VAL:HG21	2.02	0.41
6:CF:38:ARG:HG3	6:CF:63:ASN:CB	2.48	0.41
9:CI:79:ARG:CZ	9:CI:102:PHE:HD1	2.33	0.41
10:CJ:11:LYS:HA	10:CJ:18:ILE:HD11	2.03	0.41
10:CJ:49:PHE:O	10:CJ:50:THR:HG22	2.21	0.41
10:CJ:87:LEU:HD13	10:CJ:87:LEU:O	2.21	0.41
11:CK:74:LYS:CB	11:CK:78:ILE:HD11	2.49	0.41
12:CL:7:VAL:HG22	17:CQ:33:TYR:HD1	1.83	0.41
12:CL:15:VAL:O	12:CL:16:ALA:O	2.39	0.41
12:CL:72:ASN:HD22	12:CL:72:ASN:N	2.12	0.41
55:CM:85:TYR:HE2	55:CM:96:VAL:HG11	1.83	0.41
14:CN:60:ARG:CG	14:CN:61:ASN:H	2.21	0.41
56:CP:20:VAL:CG2	56:CP:32:PHE:HB2	2.49	0.41
56:CP:78:VAL:HG11	56:CP:80:LYS:HE3	2.03	0.41
17:CQ:62:GLU:N	17:CQ:72:TRP:CE3	2.89	0.41
22:DA:2:G:C5	22:DA:3:U:C5	3.09	0.41
22:DA:58:G:N3	22:DA:73:A:C2	2.88	0.41
22:DA:300:A:H1'	22:DA:333:G:H21	1.86	0.41
22:DA:323:C:C4	22:DA:333:G:N7	2.88	0.41
22:DA:324:A:O2'	22:DA:325:G:O4'	2.32	0.41
22:DA:358:U:N3	22:DA:359:G:N7	2.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:373:U:H2'	22:DA:400:G:H22	1.85	0.41
22:DA:579:G:C8	22:DA:2017:U:C4	3.09	0.41
22:DA:635:C:C5	33:DL:109:LYS:NZ	2.88	0.41
22:DA:835:C:C4	22:DA:836:G:N7	2.89	0.41
22:DA:992:C:O2'	22:DA:993:G:H5'	2.20	0.41
22:DA:1071:G:O6	22:DA:1091:G:N7	2.53	0.41
22:DA:1353:A:O2'	22:DA:1354:A:H5'	2.21	0.41
22:DA:1388:G:C2	22:DA:1389:G:C8	3.08	0.41
22:DA:1479:G:HO2'	22:DA:1560:G:HO2'	1.63	0.41
22:DA:1689:A:C4	22:DA:1700:A:C6	3.09	0.41
22:DA:1712:U:C4	22:DA:1713:A:C6	3.09	0.41
22:DA:1800:C:H5''	24:DC:145:MET:HE1	2.02	0.41
22:DA:1813:G:N3	24:DC:49:THR:CB	2.83	0.41
22:DA:2157:G:OP2	22:DA:2157:G:N2	2.53	0.41
22:DA:2252:G:H2'	22:DA:2253:G:O4'	2.21	0.41
22:DA:2393:U:C2'	22:DA:2394:C:H5'	2.50	0.41
22:DA:2511:U:O5'	22:DA:2511:U:H6	2.03	0.41
22:DA:2691:C:O2'	22:DA:2692:G:C5'	2.67	0.41
22:DA:2879:A:HO2'	22:DA:2880:C:P	2.43	0.41
24:DC:52:HIS:HA	24:DC:216:ARG:CB	2.40	0.41
25:DD:146:ILE:HG13	25:DD:155:VAL:HG22	2.03	0.41
26:DE:88:ARG:CB	26:DE:89:PRO:CD	2.99	0.41
58:DF:137:PHE:O	58:DF:138:PRO:C	2.64	0.41
29:DH:50:ARG:C	29:DH:52:ALA:N	2.78	0.41
30:DI:27:LEU:HD13	30:DI:32:VAL:HG21	2.00	0.41
30:DI:54:ILE:HA	30:DI:55:PRO:HD2	1.87	0.41
30:DI:139:VAL:O	30:DI:140:GLU:HB2	2.19	0.41
33:DL:65:GLY:O	33:DL:66:PHE:CB	2.68	0.41
33:DL:144:GLU:O	33:DL:144:GLU:HG3	2.21	0.41
34:DM:11:LYS:HG2	34:DM:89:VAL:HG13	2.02	0.41
35:DN:2:ARG:HG2	35:DN:5:LYS:HD3	2.03	0.41
35:DN:13:ASN:O	35:DN:17:ARG:NH1	2.53	0.41
35:DN:92:GLY:N	35:DN:94:TYR:CE1	2.77	0.41
37:DP:28:LYS:NZ	37:DP:82:SER:HB2	2.35	0.41
40:DS:8:ARG:HB3	40:DS:102:HIS:ND1	2.36	0.41
44:DW:18:LYS:NZ	44:DW:18:LYS:CB	2.83	0.41
44:DW:43:LYS:CD	44:DW:79:ILE:HD11	2.50	0.41
44:DW:56:HIS:O	44:DW:58:LEU:N	2.54	0.41
1:AA:35:G:N2	12:AL:114:SER:OG	2.49	0.41
1:AA:182:A:H1'	1:AA:183:C:C6	2.56	0.41
1:AA:204:G:N3	1:AA:465:A:C4	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:218:U:C5	1:AA:219:U:C4	3.09	0.41
1:AA:233:C:H2'	1:AA:234:C:H6	1.86	0.41
1:AA:373:A:H2'	1:AA:374:A:C8	2.54	0.41
1:AA:462:G:C5'	1:AA:463:U:OP2	2.69	0.41
1:AA:507:C:C3'	1:AA:508:U:H5''	2.49	0.41
1:AA:973:G:H2'	1:AA:974:A:OP1	2.19	0.41
1:AA:1143:G:N3	1:AA:1144:G:C8	2.88	0.41
1:AA:1342:C:H2'	1:AA:1343:G:H8	1.85	0.41
1:AA:1380:U:C4'	1:AA:1381:U:OP1	2.69	0.41
2:AB:27:LYS:C	2:AB:29:PHE:N	2.79	0.41
2:AB:110:ILE:HD12	2:AB:147:LEU:HD11	1.98	0.41
3:AC:113:LYS:HE3	3:AC:117:ASP:OD2	2.21	0.41
4:AD:162:GLU:C	4:AD:164:ARG:H	2.28	0.41
5:AE:106:ALA:CB	5:AE:124:ALA:HB3	2.51	0.41
9:AI:11:ARG:HA	9:AI:105:ARG:NH1	2.35	0.41
9:AI:60:LEU:HD23	9:AI:60:LEU:N	2.35	0.41
10:AJ:10:LEU:HB2	10:AJ:72:ARG:HB2	2.03	0.41
10:AJ:56:HIS:O	10:AJ:57:VAL:O	2.38	0.41
13:AM:44:ILE:O	13:AM:44:ILE:HG22	2.19	0.41
14:AN:15:LEU:C	14:AN:17:ASP:H	2.29	0.41
14:AN:88:MET:HE1	14:AN:97:LYS:CD	2.49	0.41
15:AO:69:LEU:HD22	15:AO:77:TYR:HA	2.02	0.41
22:BA:9:G:C6	22:BA:2629:U:C6	3.09	0.41
22:BA:30:G:H2'	22:BA:31:C:C6	2.56	0.41
22:BA:104:A:H2'	22:BA:105:C:O4'	2.21	0.41
22:BA:153:U:H2'	22:BA:154:U:C5'	2.50	0.41
22:BA:246:C:C2'	22:BA:247:G:H5'	2.50	0.41
22:BA:289:G:C4	22:BA:290:U:C6	3.08	0.41
22:BA:477:A:OP1	22:BA:477:A:H8	2.03	0.41
22:BA:675:A:N6	22:BA:676:A:N6	2.67	0.41
22:BA:797:G:C4	22:BA:798:G:C8	3.09	0.41
22:BA:1045:C:C5'	22:BA:1047:G:H5'	2.51	0.41
22:BA:1061:U:H6	22:BA:1070:A:N9	2.18	0.41
22:BA:1310:G:C2'	22:BA:1311:G:H5'	2.51	0.41
22:BA:1694:C:H4'	22:BA:1695:G:O5'	2.19	0.41
22:BA:2013:A:C2'	22:BA:2014:A:H5'	2.51	0.41
22:BA:2340:A:H2'	22:BA:2341:G:C8	2.56	0.41
22:BA:2511:U:O4	22:BA:2575:C:N3	2.53	0.41
22:BA:2648:G:H2'	22:BA:2649:C:H6	1.86	0.41
22:BA:2732:G:C3'	22:BA:2733:A:H5'	2.51	0.41
23:BB:51:G:H21	23:BB:53:A:N6	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:BB:55:U:H2'	23:BB:56:G:O4'	2.20	0.41
24:BC:169:ALA:O	24:BC:185:ALA:CB	2.68	0.41
25:BD:60:VAL:O	25:BD:60:VAL:HG13	2.20	0.41
26:BE:96:VAL:HG11	26:BE:101:TYR:HB2	2.03	0.41
29:BH:74:ALA:C	29:BH:75:LEU:HD12	2.45	0.41
30:BI:41:PHE:CE2	30:BI:45:THR:HG21	2.56	0.41
30:BI:49:GLU:HG2	30:BI:50:LYS:N	2.35	0.41
30:BI:130:GLY:HA2	30:BI:133:ARG:HB3	2.01	0.41
31:BJ:1:MET:O	31:BJ:2:LYS:C	2.63	0.41
32:BK:76:VAL:HB	37:BP:72:VAL:HG22	1.98	0.41
33:BL:21:ARG:HD3	33:BL:21:ARG:HA	1.28	0.41
33:BL:89:VAL:O	33:BL:89:VAL:HG13	2.20	0.41
35:BN:78:LYS:HG2	35:BN:83:LEU:HD22	2.01	0.41
38:BQ:85:ALA:O	38:BQ:87:VAL:O	2.38	0.41
39:BR:100:GLY:C	39:BR:101:ILE:HG12	2.45	0.41
40:BS:25:ARG:CD	40:BS:73:LYS:HZ1	2.34	0.41
43:BV:75:GLN:OE1	43:BV:75:GLN:CA	2.64	0.41
46:BY:61:ALA:C	46:BY:63:ALA:H	2.27	0.41
47:BZ:35:VAL:HG22	47:BZ:36:GLU:N	2.36	0.41
47:BZ:40:THR:C	47:BZ:42:ALA:H	2.29	0.41
49:B1:25:ASN:OD1	49:B1:25:ASN:C	2.63	0.41
53:CA:182:A:H2	53:CA:194:C:H42	1.62	0.41
53:CA:275:G:O2'	53:CA:276:G:H8	2.04	0.41
53:CA:377:G:O2'	53:CA:378:G:H5'	2.20	0.41
53:CA:377:G:H2'	53:CA:378:G:H8	1.85	0.41
53:CA:414:A:O2'	53:CA:415:A:O4'	2.38	0.41
53:CA:438:U:H4'	4:CD:119:HIS:CD2	2.56	0.41
53:CA:551:U:O2'	53:CA:552:U:H5'	2.20	0.41
53:CA:864:A:C5	53:CA:865:A:C6	3.09	0.41
53:CA:972:C:H4'	10:CJ:59:LYS:HG2	2.03	0.41
53:CA:1004:A:N3	53:CA:1026:G:C6	2.88	0.41
53:CA:1047:G:C2'	53:CA:1048:G:H5'	2.51	0.41
53:CA:1060:U:O2'	10:CJ:54:SER:HB2	2.21	0.41
53:CA:1149:C:H2'	53:CA:1150:A:O4'	2.21	0.41
53:CA:1226:C:C2	53:CA:1228:C:N4	2.89	0.41
53:CA:1229:A:O2'	53:CA:1230:C:P	2.79	0.41
53:CA:1351:U:O2'	53:CA:1352:C:H5'	2.21	0.41
53:CA:1416:G:N2	53:CA:1485:U:O2	2.54	0.41
53:CA:1430:A:C6	53:CA:1431:A:C2	3.08	0.41
3:CC:179:ALA:HA	3:CC:205:GLU:O	2.20	0.41
4:CD:47:LEU:HD23	4:CD:52:VAL:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CD:75:TYR:CD1	4:CD:75:TYR:C	2.99	0.41
6:CF:18:VAL:CG1	6:CF:22:ILE:HD11	2.50	0.41
8:CH:78:SER:HA	8:CH:84:ILE:HG12	2.03	0.41
8:CH:111:THR:HG22	8:CH:112:ASP:N	2.36	0.41
9:CI:25:GLY:HA2	9:CI:60:LEU:O	2.20	0.41
56:CP:51:ARG:HD3	56:CP:51:ARG:HA	1.88	0.41
56:CP:74:LEU:HD23	56:CP:74:LEU:HA	1.89	0.41
18:CR:55:ALA:HA	18:CR:58:ILE:HD12	2.03	0.41
22:DA:155:A:H2'	22:DA:156:A:C8	2.56	0.41
22:DA:225:C:H2'	22:DA:225:C:O2	2.20	0.41
22:DA:241:A:O2'	22:DA:242:G:O5'	2.36	0.41
22:DA:249:C:O3'	22:DA:2394:C:H4'	2.21	0.41
22:DA:272:A:C4	22:DA:273:G:N7	2.89	0.41
22:DA:333:G:O2'	22:DA:334:C:H5'	2.21	0.41
22:DA:1340:U:C4	22:DA:1603:A:C8	3.08	0.41
22:DA:1358:G:N2	22:DA:1374:G:C6	2.88	0.41
22:DA:1451:C:O2	22:DA:1451:C:C2'	2.69	0.41
22:DA:1471:G:O6	22:DA:1521:G:C2	2.74	0.41
22:DA:1668:A:N6	22:DA:1993:U:C5	2.89	0.41
22:DA:1681:G:O2'	22:DA:1762:A:O2'	2.26	0.41
22:DA:1733:G:C2'	22:DA:1734:G:O5'	2.68	0.41
22:DA:1801:A:C3'	22:DA:1802:A:H5'	2.50	0.41
22:DA:1858:A:C2	22:DA:1859:U:C2	3.09	0.41
22:DA:1877:A:C6	22:DA:1878:G:C6	3.09	0.41
22:DA:1910:G:C2	22:DA:1921:G:C2	3.08	0.41
22:DA:2267:A:H2'	22:DA:2267:A:H8	1.40	0.41
22:DA:2285:C:H2'	22:DA:2286:G:C5'	2.45	0.41
22:DA:2342:C:O2'	22:DA:2374:C:H5''	2.21	0.41
22:DA:2373:G:C6	22:DA:2374:C:C4	3.08	0.41
22:DA:2517:C:C5	22:DA:2542:A:C5	3.08	0.41
57:DB:28:C:OP1	36:DO:31:THR:HG21	2.21	0.41
57:DB:67:G:O2'	57:DB:68:C:O5'	2.38	0.41
24:DC:2:VAL:O	24:DC:17:LYS:O	2.37	0.41
24:DC:73:ILE:C	24:DC:116:GLN:HE21	2.29	0.41
24:DC:75:ALA:HB2	24:DC:95:TYR:CE1	2.49	0.41
26:DE:47:LYS:O	26:DE:83:VAL:HB	2.20	0.41
58:DF:119:LYS:O	58:DF:120:SER:HB2	2.20	0.41
28:DG:6:ALA:HA	28:DG:7:PRO:HD3	1.74	0.41
28:DG:82:PHE:HB3	28:DG:140:ILE:HD11	2.03	0.41
29:DH:132:PHE:CZ	29:DH:134:VAL:CG1	3.03	0.41
29:DH:140:ALA:O	29:DH:141:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DI:2:LYS:HB3	30:DI:3:LYS:H	1.65	0.41
30:DI:79:LEU:HD13	30:DI:100:ILE:CD1	2.51	0.41
32:DK:15:GLY:O	32:DK:16:ALA:O	2.38	0.41
33:DL:77:ILE:HG22	33:DL:78:ARG:N	2.34	0.41
33:DL:128:THR:HB	33:DL:131:ALA:H	1.86	0.41
35:DN:56:LYS:CD	35:DN:88:ALA:HA	2.48	0.41
35:DN:58:ASP:O	35:DN:59:SER:HB3	2.20	0.41
35:DN:98:LEU:HD12	35:DN:98:LEU:HA	1.89	0.41
36:DO:112:GLU:HG3	36:DO:113:ALA:H	1.84	0.41
38:DQ:89:ILE:O	38:DQ:91:ARG:N	2.53	0.41
41:DT:15:HIS:CD2	41:DT:17:SER:HB2	2.55	0.41
42:DU:73:ASN:O	42:DU:74:ALA:HB3	2.21	0.41
47:DZ:53:MET:O	47:DZ:54:VAL:CG1	2.69	0.41
1:AA:68:G:O4'	1:AA:171:A:H1'	2.21	0.41
1:AA:180:U:C2'	1:AA:181:A:O5'	2.69	0.41
1:AA:269:C:H2'	1:AA:270:A:O5'	2.21	0.41
1:AA:499:A:O4'	1:AA:547:A:N6	2.54	0.41
1:AA:574:A:H1'	1:AA:883:C:O4'	2.20	0.41
1:AA:782:A:H2'	1:AA:783:C:C5'	2.51	0.41
1:AA:913:A:O2'	1:AA:914:A:OP2	2.35	0.41
1:AA:923:A:C5	1:AA:924:C:C5	3.08	0.41
1:AA:977:A:H3'	1:AA:1362:A:H62	1.86	0.41
1:AA:1064:G:O6	1:AA:1193:G:C6	2.73	0.41
1:AA:1267:C:C2'	1:AA:1268:G:H5'	2.51	0.41
1:AA:1350:A:C5	1:AA:1351:U:C4	3.09	0.41
1:AA:1371:G:C6	1:AA:1372:U:C4	3.09	0.41
1:AA:1467:C:H2'	1:AA:1468:A:H8	1.85	0.41
2:AB:77:GLU:HA	2:AB:80:LYS:HB3	2.02	0.41
2:AB:131:LYS:C	2:AB:133:ALA:N	2.79	0.41
3:AC:107:LYS:HB2	3:AC:107:LYS:NZ	2.36	0.41
3:AC:148:ILE:CG1	3:AC:149:LYS:N	2.79	0.41
4:AD:25:ARG:H	4:AD:25:ARG:HG3	1.71	0.41
4:AD:57:LYS:HB2	4:AD:199:ILE:HG13	2.01	0.41
4:AD:166:LYS:HB3	4:AD:166:LYS:HZ2	1.84	0.41
6:AF:47:LEU:HB3	18:AR:65:SER:OG	2.20	0.41
7:AG:41:ILE:HG21	7:AG:115:MET:HB3	2.03	0.41
9:AI:41:GLU:HB3	9:AI:42:THR:H	1.60	0.41
12:AL:107:LYS:O	12:AL:108:ASP:HB2	2.20	0.41
14:AN:59:GLN:H	14:AN:59:GLN:HE21	1.69	0.41
14:AN:64:ARG:HB2	14:AN:77:GLY:O	2.21	0.41
14:AN:88:MET:CE	14:AN:97:LYS:HD2	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:68:TYR:CZ	15:AO:72:LYS:HG3	2.56	0.41
18:AR:19:GLU:OE1	18:AR:50:TYR:HD1	2.04	0.41
19:AS:23:GLU:O	19:AS:23:GLU:HG3	2.21	0.41
22:BA:445:C:N4	22:BA:446:G:C6	2.89	0.41
22:BA:486:C:C3'	22:BA:486:C:C6	3.04	0.41
22:BA:571:U:O2'	22:BA:573:U:O5'	2.39	0.41
22:BA:580:U:O2'	38:BQ:30:VAL:HG22	2.21	0.41
22:BA:633:A:C8	22:BA:633:A:C3'	3.04	0.41
22:BA:811:U:HO2'	22:BA:1250:G:H2'	1.86	0.41
22:BA:825:A:H1'	33:BL:54:GLN:NE2	2.35	0.41
22:BA:1085:A:C2	22:BA:1086:A:C5	3.09	0.41
22:BA:1266:G:N7	40:BS:16:LYS:HE3	2.35	0.41
22:BA:1363:C:O2'	22:BA:1809:A:N3	2.45	0.41
22:BA:1377:G:H8	22:BA:1377:G:O5'	2.03	0.41
22:BA:1420:A:C8	22:BA:2211:A:N6	2.89	0.41
22:BA:1491:G:HO2'	22:BA:1492:G:H5'	1.86	0.41
22:BA:1635:A:C4	22:BA:1636:U:C6	3.09	0.41
22:BA:1668:A:C2	22:BA:1674:G:C1'	3.04	0.41
22:BA:1734:G:O2'	22:BA:1735:A:O5'	2.38	0.41
22:BA:2307:G:O6	27:BF:40:GLY:HA3	2.21	0.41
22:BA:2353:G:O2'	44:BW:31:LEU:HD23	2.20	0.41
22:BA:2540:C:H2'	22:BA:2541:A:C5'	2.50	0.41
22:BA:2808:G:O2'	22:BA:2809:A:OP2	2.38	0.41
22:BA:2852:G:C6	22:BA:2853:C:C4	3.09	0.41
23:BB:49:C:C2'	23:BB:50:A:H5'	2.51	0.41
23:BB:89:U:O2	23:BB:89:U:O4'	2.39	0.41
24:BC:207:ALA:O	24:BC:208:GLY:C	2.64	0.41
25:BD:18:ASP:OD1	25:BD:20:VAL:HB	2.21	0.41
26:BE:124:PHE:HD1	26:BE:124:PHE:O	2.04	0.41
27:BF:40:GLY:N	27:BF:84:ILE:CD1	2.84	0.41
27:BF:106:ALA:CA	27:BF:108:PRO:HD2	2.51	0.41
32:BK:18:ARG:HA	32:BK:18:ARG:HD2	1.69	0.41
32:BK:76:VAL:H	37:BP:72:VAL:HG23	1.86	0.41
34:BM:96:ILE:HD11	34:BM:126:ILE:HD13	2.02	0.41
38:BQ:63:ARG:CZ	38:BQ:95:ALA:O	2.69	0.41
38:BQ:91:ARG:NH2	38:BQ:93:ILE:CD1	2.78	0.41
40:BS:51:LEU:O	40:BS:55:ILE:HG13	2.21	0.41
40:BS:64:ALA:O	40:BS:65:ASP:HB3	2.21	0.41
42:BU:5:ARG:O	42:BU:6:ARG:O	2.38	0.41
48:B0:9:ARG:CZ	48:B0:9:ARG:HB3	2.51	0.41
53:CA:35:G:C4	53:CA:36:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:104:G:H4'	53:CA:174:A:O4'	2.19	0.41
53:CA:209:U:O2	53:CA:209:U:C2'	2.67	0.41
53:CA:230:G:H2'	53:CA:231:U:O4'	2.20	0.41
53:CA:240:G:H5''	53:CA:240:G:C8	2.56	0.41
53:CA:320:A:C2	53:CA:334:C:C2	3.09	0.41
53:CA:821:G:H4'	62:CA:1740:HOH:O	2.20	0.41
53:CA:987:G:N2	53:CA:1218:C:C2	2.85	0.41
53:CA:994:A:N3	53:CA:995:C:H6	2.16	0.41
53:CA:1134:G:C2	53:CA:1141:C:N3	2.88	0.41
53:CA:1326:U:N3	53:CA:1327:C:C4	2.89	0.41
53:CA:1346:A:N6	54:CG:9:ARG:HH12	2.19	0.41
3:CC:39:ARG:HG2	3:CC:54:ILE:HG21	2.03	0.41
3:CC:181:ILE:HG12	3:CC:202:PHE:HA	2.01	0.41
4:CD:54:LEU:HA	4:CD:202:LEU:CD1	2.50	0.41
6:CF:41:ASP:OD2	6:CF:58:HIS:CE1	2.74	0.41
54:CG:22:LEU:O	54:CG:26:VAL:HG22	2.19	0.41
9:CI:37:TYR:N	9:CI:37:TYR:CD2	2.88	0.41
12:CL:33:CYS:HB3	12:CL:77:SER:O	2.21	0.41
12:CL:101:LEU:HB3	12:CL:102:ASP:H	1.71	0.41
55:CM:13:HIS:CG	55:CM:16:ILE:HD13	2.56	0.41
55:CM:75:SER:HB2	55:CM:79:LEU:HG	2.02	0.41
17:CQ:37:ILE:HD11	17:CQ:39:ARG:CZ	2.50	0.41
22:DA:296:U:H2'	22:DA:297:G:O4'	2.20	0.41
22:DA:573:U:C4'	22:DA:574:A:OP1	2.45	0.41
22:DA:580:U:C6	22:DA:580:U:C3'	3.04	0.41
22:DA:830:G:H8	22:DA:830:G:OP2	2.02	0.41
22:DA:845:A:N6	22:DA:932:U:H3	2.19	0.41
22:DA:900:A:C6	22:DA:901:C:N3	2.88	0.41
22:DA:931:U:H4'	22:DA:932:U:OP1	2.18	0.41
22:DA:983:A:C6	22:DA:984:A:C2	3.09	0.41
22:DA:1016:G:C2	22:DA:1147:A:C2	3.08	0.41
22:DA:1029:A:N7	22:DA:1030:C:C2	2.89	0.41
22:DA:1206:G:C2	22:DA:1207:C:C2	3.08	0.41
22:DA:1252:G:C2	22:DA:1253:A:C2	3.08	0.41
22:DA:1252:G:C2	22:DA:1253:A:H2	2.39	0.41
22:DA:1527:G:H1'	22:DA:1546:G:H22	1.85	0.41
22:DA:2054:A:H2'	48:D0:4:GLN:OE1	2.21	0.41
22:DA:2056:G:C2	22:DA:2057:G:N7	2.89	0.41
22:DA:2093:G:C5	22:DA:2225:A:N7	2.88	0.41
22:DA:2248:C:H3'	22:DA:2249:U:C6	2.56	0.41
22:DA:2262:U:H1'	22:DA:2328:A:H1'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:2262:U:O2'	22:DA:2263:C:H5'	2.21	0.41
22:DA:2356:U:H2'	22:DA:2357:G:O4'	2.20	0.41
22:DA:2378:A:H2'	22:DA:2379:G:C4'	2.51	0.41
22:DA:2389:G:O5'	22:DA:2390:U:H5'	2.19	0.41
22:DA:2464:G:N2	22:DA:2465:C:H1'	2.36	0.41
22:DA:2586:U:O2'	22:DA:2587:A:C5'	2.63	0.41
22:DA:2654:A:N3	22:DA:2656:U:O4	2.54	0.41
22:DA:2657:A:O2'	22:DA:2658:C:O4'	2.28	0.41
22:DA:2771:C:H5''	25:DD:207:VAL:HG11	2.03	0.41
22:DA:2823:A:H2'	22:DA:2824:C:H5'	2.03	0.41
22:DA:2841:C:C2	22:DA:2877:G:N2	2.89	0.41
22:DA:2873:A:H2	35:DN:5:LYS:HG3	1.84	0.41
57:DB:23:G:C2	57:DB:61:G:C2	3.09	0.41
24:DC:94:LEU:CB	24:DC:100:ARG:HD2	2.46	0.41
26:DE:65:THR:HG23	26:DE:67:ARG:HG3	2.03	0.41
26:DE:90:GLN:OE1	26:DE:90:GLN:CA	2.66	0.41
58:DF:91:ARG:CA	58:DF:95:MET:SD	2.97	0.41
58:DF:134:GLN:HB2	58:DF:137:PHE:CE2	2.50	0.41
34:DM:17:ASN:C	34:DM:18:ARG:HG2	2.46	0.41
35:DN:67:PHE:C	35:DN:67:PHE:HD1	2.29	0.41
37:DP:47:ILE:HD11	37:DP:70:GLU:HG2	2.02	0.41
37:DP:95:LYS:HA	37:DP:95:LYS:HE3	2.02	0.41
39:DR:94:THR:C	39:DR:95:ASP:OD1	2.64	0.41
40:DS:9:HIS:O	40:DS:10:ALA:C	2.64	0.41
41:DT:19:LYS:HD3	41:DT:19:LYS:HA	1.76	0.41
41:DT:20:ALA:HB1	41:DT:31:VAL:HG11	2.03	0.41
43:DV:21:ARG:HE	43:DV:87:GLN:HG2	1.85	0.41
44:DW:33:GLY:O	44:DW:34:SER:HB3	2.21	0.41
47:DZ:6:ILE:HD12	47:DZ:47:ILE:CD1	2.50	0.41
1:AA:109:A:C4	1:AA:327:A:C2	3.08	0.41
1:AA:142:G:O2'	1:AA:196:A:N1	2.48	0.41
1:AA:147:G:N2	1:AA:176:C:C2	2.89	0.41
1:AA:159:G:N2	1:AA:162:A:OP2	2.52	0.41
1:AA:211:G:C2'	1:AA:212:G:O5'	2.68	0.41
1:AA:213:G:C8	1:AA:214:C:C5	3.09	0.41
1:AA:243:A:H2	1:AA:245:U:H2'	1.80	0.41
1:AA:377:G:H5'	16:AP:5:ARG:HH12	1.85	0.41
1:AA:389:A:N3	1:AA:389:A:H2'	2.35	0.41
1:AA:404:G:N7	4:AD:1:ALA:HB3	2.36	0.41
1:AA:437:U:H4'	4:AD:153:ARG:HH21	1.84	0.41
1:AA:632:U:H2'	1:AA:633:G:OP1	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:669:G:H2'	1:AA:670:G:H5'	2.02	0.41
1:AA:832:G:C2	1:AA:833:G:C8	3.09	0.41
1:AA:892:A:O2'	1:AA:893:C:H5'	2.21	0.41
1:AA:999:C:H2'	1:AA:1000:A:H8	1.85	0.41
1:AA:1002:G:C2	1:AA:1003:G:H1'	2.56	0.41
1:AA:1068:G:N3	1:AA:1068:G:H2'	2.34	0.41
1:AA:1077:G:C6	1:AA:1081:A:C6	3.09	0.41
1:AA:1157:A:N6	1:AA:1178:G:H1'	2.36	0.41
1:AA:1157:A:C1'	1:AA:1181:G:N1	2.82	0.41
1:AA:1228:C:O2'	1:AA:1229:A:C5'	2.69	0.41
1:AA:1228:C:HO2'	1:AA:1229:A:H8	1.64	0.41
1:AA:1358:U:C6	1:AA:1359:C:C6	3.08	0.41
1:AA:1375:A:C5	1:AA:1376:U:C5	3.09	0.41
1:AA:1381:U:O2'	1:AA:1382:C:H6	2.03	0.41
1:AA:1405:G:C2'	1:AA:1406:U:O5'	2.69	0.41
1:AA:1433:A:N6	1:AA:1468:A:C8	2.88	0.41
1:AA:1499:A:H2'	1:AA:1500:A:H8	1.85	0.41
2:AB:68:PHE:CD2	2:AB:83:ALA:HB1	2.56	0.41
2:AB:156:LEU:O	2:AB:157:PRO:C	2.64	0.41
3:AC:143:LEU:H	3:AC:143:LEU:CD2	2.14	0.41
4:AD:68:GLU:HA	4:AD:68:GLU:OE1	2.21	0.41
4:AD:77:GLU:O	4:AD:81:LEU:HG	2.21	0.41
5:AE:104:ILE:HA	5:AE:122:VAL:O	2.21	0.41
5:AE:152:VAL:CG1	5:AE:155:LYS:NZ	2.84	0.41
5:AE:152:VAL:O	5:AE:155:LYS:CD	2.69	0.41
6:AF:49:TYR:CD2	6:AF:49:TYR:C	2.99	0.41
6:AF:81:ASN:OD1	6:AF:83:ALA:CB	2.63	0.41
7:AG:74:VAL:HA	7:AG:87:PRO:HA	2.03	0.41
7:AG:108:ARG:HH21	7:AG:118:ARG:NH1	2.19	0.41
10:AJ:48:ARG:NH2	14:AN:100:TRP:CD2	2.89	0.41
12:AL:72:ASN:CG	12:AL:73:LEU:N	2.77	0.41
12:AL:108:ASP:O	12:AL:110:LYS:HG3	2.21	0.41
13:AM:1:ALA:C	13:AM:8:ILE:HG23	2.46	0.41
13:AM:25:GLY:O	13:AM:27:THR:N	2.54	0.41
15:AO:69:LEU:HD22	15:AO:77:TYR:CA	2.51	0.41
15:AO:87:ARG:O	15:AO:88:ARG:C	2.64	0.41
17:AQ:30:HIS:O	17:AQ:31:PRO:C	2.64	0.41
20:AT:23:ARG:O	20:AT:26:MET:HG3	2.21	0.41
20:AT:74:HIS:C	20:AT:76:ALA:N	2.78	0.41
22:BA:141:G:C2	41:BT:2:ILE:CG2	3.03	0.41
22:BA:186:G:N2	22:BA:211:C:C2	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:195:A:H61	22:BA:198:C:H3'	1.86	0.41
22:BA:320:A:H4'	22:BA:322:A:C8	2.56	0.41
22:BA:384:A:H2'	22:BA:384:A:N3	2.36	0.41
22:BA:387:U:C4	22:BA:388:G:O6	2.74	0.41
22:BA:403:U:O2'	22:BA:404:A:OP2	2.31	0.41
22:BA:412:A:H2'	22:BA:413:C:H5'	2.00	0.41
22:BA:447:A:H4'	22:BA:449:A:N7	2.36	0.41
22:BA:551:G:C5	22:BA:552:U:C5	3.09	0.41
22:BA:735:A:H3'	22:BA:736:C:C6	2.56	0.41
22:BA:744:U:H2'	22:BA:745:G:O4'	2.20	0.41
22:BA:766:U:H2'	22:BA:767:U:C6	2.55	0.41
22:BA:797:G:O6	62:BA:3317:HOH:O	2.21	0.41
22:BA:832:U:O2'	22:BA:833:A:H5'	2.21	0.41
22:BA:990:A:N6	22:BA:1186:G:H1'	2.35	0.41
22:BA:1012:U:C2	31:BJ:27:ARG:NH1	2.88	0.41
22:BA:1059:G:C6	22:BA:1080:A:C6	3.08	0.41
22:BA:1144:A:H2'	22:BA:1145:C:C6	2.56	0.41
22:BA:1205:A:H3'	22:BA:1206:G:H5'	2.03	0.41
22:BA:1300:G:H4'	22:BA:1301:A:H5'	2.03	0.41
22:BA:1344:U:H1'	22:BA:1384:A:H2'	2.01	0.41
22:BA:1357:C:C2'	22:BA:1358:G:H5'	2.51	0.41
22:BA:1386:C:H5''	22:BA:1396:U:O2	2.20	0.41
22:BA:1392:A:C6	22:BA:1393:A:C6	3.09	0.41
22:BA:1419:A:C3'	22:BA:1420:A:H5''	2.47	0.41
22:BA:1587:G:C4	22:BA:1588:G:C8	3.08	0.41
22:BA:1707:G:C5	22:BA:1756:G:C6	3.09	0.41
22:BA:1797:G:C5	22:BA:1798:U:C5	3.09	0.41
22:BA:1820:U:H3'	22:BA:1821:A:C5'	2.49	0.41
22:BA:1842:G:H4'	24:BC:242:HIS:ND1	2.36	0.41
22:BA:1903:G:C2'	22:BA:1904:G:H5'	2.51	0.41
22:BA:1939:U:OP1	22:BA:2604:U:O2'	2.34	0.41
22:BA:2144:G:N2	22:BA:2148:G:C8	2.88	0.41
22:BA:2192:U:O2'	22:BA:2193:G:H5'	2.21	0.41
22:BA:2250:G:OP1	22:BA:2275:C:H2'	2.20	0.41
22:BA:2311:A:H4'	22:BA:2312:U:OP1	2.19	0.41
22:BA:2364:C:H4'	44:BW:55:ASP:OD1	2.20	0.41
22:BA:2415:G:C5	22:BA:2416:C:C4	3.09	0.41
22:BA:2485:G:H5''	34:BM:45:GLN:HE21	1.85	0.41
22:BA:2515:C:O2'	22:BA:2516:A:H5'	2.21	0.41
22:BA:2606:C:C2'	22:BA:2607:G:H5'	2.51	0.41
22:BA:2671:G:C5	22:BA:2672:U:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2793:C:H2'	22:BA:2794:C:C6	2.54	0.41
22:BA:2887:A:C4	22:BA:2888:C:C5	3.09	0.41
23:BB:93:C:O2'	23:BB:94:A:H5'	2.20	0.41
24:BC:141:HIS:CG	24:BC:190:THR:HG22	2.56	0.41
24:BC:144:GLU:CA	24:BC:151:GLY:HA2	2.44	0.41
26:BE:5:LEU:HD21	26:BE:122:GLU:HG2	2.03	0.41
26:BE:60:TRP:CZ2	26:BE:70:SER:HB3	2.56	0.41
26:BE:153:LEU:HD12	26:BE:153:LEU:O	2.19	0.41
26:BE:156:ASN:O	26:BE:159:LEU:N	2.54	0.41
26:BE:169:VAL:O	26:BE:169:VAL:HG23	2.20	0.41
27:BF:131:VAL:CG2	27:BF:151:LEU:H	2.24	0.41
28:BG:93:TYR:O	28:BG:94:ARG:C	2.64	0.41
31:BJ:5:THR:O	31:BJ:5:THR:HG22	2.16	0.41
31:BJ:119:PHE:CD1	31:BJ:119:PHE:C	2.98	0.41
32:BK:2:ILE:HG22	32:BK:3:GLN:N	2.34	0.41
32:BK:13:ASN:N	32:BK:100:PHE:HE1	2.19	0.41
33:BL:66:PHE:C	33:BL:66:PHE:CD1	2.96	0.41
33:BL:92:LEU:HD21	33:BL:124:GLY:C	2.46	0.41
33:BL:96:LYS:CA	33:BL:101:ILE:HG22	2.42	0.41
34:BM:4:PRO:HG3	34:BM:70:ASP:HA	2.03	0.41
35:BN:33:ILE:HD11	35:BN:118:ARG:HH21	1.86	0.41
36:BO:21:LEU:HD23	36:BO:21:LEU:HA	1.93	0.41
37:BP:4:ILE:O	37:BP:5:LYS:HB3	2.21	0.41
38:BQ:78:PHE:CE2	38:BQ:109:VAL:HA	2.56	0.41
38:BQ:81:GLY:O	38:BQ:85:ALA:N	2.49	0.41
39:BR:3:ALA:CA	39:BR:40:MET:O	2.68	0.41
40:BS:32:ALA:HB1	40:BS:51:LEU:CD2	2.51	0.41
41:BT:13:ALA:O	41:BT:32:LEU:CB	2.68	0.41
41:BT:40:LYS:O	41:BT:44:LYS:HB2	2.21	0.41
42:BU:30:SER:CB	42:BU:32:LYS:HD3	2.49	0.41
43:BV:55:GLU:H	43:BV:55:GLU:HG3	1.54	0.41
45:BX:33:HIS:N	45:BX:50:VAL:O	2.53	0.41
46:BY:14:LEU:HD13	46:BY:17:GLU:HG2	2.03	0.41
46:BY:42:LEU:HD12	46:BY:42:LEU:HA	1.63	0.41
50:B2:22:MET:HE3	50:B2:28:ARG:HD3	2.01	0.41
50:B2:44:VAL:O	50:B2:44:VAL:HG12	2.20	0.41
51:B3:23:HIS:N	51:B3:47:ALA:O	2.53	0.41
53:CA:66:A:C6	53:CA:67:C:C5	3.09	0.41
53:CA:70:U:C2	53:CA:94:G:C5	3.08	0.41
53:CA:79:G:N1	53:CA:80:A:N6	2.68	0.41
53:CA:86:G:C2	53:CA:87:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:148:G:C2	53:CA:149:A:C4	3.08	0.41
53:CA:179:A:O2'	53:CA:180:U:H5'	2.21	0.41
53:CA:182:A:C4	53:CA:184:G:C8	3.09	0.41
53:CA:198:G:N3	53:CA:199:A:C8	2.89	0.41
53:CA:206:C:C6	53:CA:206:C:C3'	3.04	0.41
53:CA:206:C:O5'	53:CA:207:C:OP2	2.38	0.41
53:CA:212:G:C2	53:CA:213:G:C8	3.09	0.41
53:CA:237:G:C2'	53:CA:238:A:H5'	2.51	0.41
53:CA:369:G:C2	53:CA:370:C:C6	3.08	0.41
53:CA:428:G:C4	53:CA:430:A:C6	3.09	0.41
53:CA:658:C:O2'	53:CA:659:U:H5'	2.21	0.41
53:CA:665:A:C2	53:CA:732:C:C6	3.09	0.41
53:CA:782:A:H2'	53:CA:783:C:C5'	2.50	0.41
53:CA:794:A:O2'	53:CA:795:C:O4'	2.35	0.41
53:CA:829:G:C6	53:CA:858:G:N2	2.89	0.41
53:CA:860:A:H2'	53:CA:861:G:O4'	2.21	0.41
53:CA:957:U:C5	53:CA:959:A:OP2	2.74	0.41
53:CA:978:A:C8	53:CA:1319:A:C2	3.09	0.41
53:CA:1060:U:C5	3:CC:1:GLY:N	2.77	0.41
53:CA:1083:U:C5	53:CA:1084:G:C5	3.08	0.41
53:CA:1140:C:O2'	53:CA:1141:C:H6	2.01	0.41
53:CA:1227:A:O5'	55:CM:109:LYS:HE3	2.20	0.41
53:CA:1416:G:C2	53:CA:1485:U:O2	2.74	0.41
53:CA:1429:A:O2'	53:CA:1430:A:H5'	2.20	0.41
53:CA:1447:A:O3'	53:CA:1448:C:H6	2.03	0.41
2:CB:56:LEU:HD13	2:CB:56:LEU:C	2.46	0.41
2:CB:64:GLY:HA2	2:CB:158:ASP:OD2	2.21	0.41
3:CC:133:MET:O	3:CC:137:VAL:HG23	2.21	0.41
3:CC:149:LYS:HD2	3:CC:200:TRP:HE3	1.86	0.41
4:CD:3:TYR:CE2	4:CD:5:GLY:CA	3.04	0.41
4:CD:46:ARG:O	4:CD:47:LEU:O	2.39	0.41
4:CD:61:ARG:HG2	4:CD:71:PHE:CD2	2.55	0.41
4:CD:68:GLU:O	4:CD:69:ARG:C	2.63	0.41
4:CD:106:PHE:HB3	4:CD:144:ILE:HD11	2.03	0.41
5:CE:114:LEU:C	5:CE:116:VAL:H	2.28	0.41
54:CG:91:ARG:CG	54:CG:92:PRO:CD	2.75	0.41
9:CI:14:SER:OG	9:CI:69:GLY:HA3	2.21	0.41
11:CK:124:LYS:O	21:CU:33:ARG:NE	2.54	0.41
12:CL:33:CYS:HA	12:CL:54:VAL:HG13	2.01	0.41
12:CL:83:GLY:HA2	12:CL:94:TYR:HA	2.03	0.41
55:CM:16:ILE:CD1	55:CM:16:ILE:N	2.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:CM:101:THR:O	55:CM:102:LYS:C	2.63	0.41
14:CN:25:GLU:HA	14:CN:28:ALA:HB2	2.02	0.41
15:CO:69:LEU:HD11	15:CO:77:TYR:CA	2.51	0.41
56:CP:19:VAL:HG13	56:CP:37:GLY:CA	2.49	0.41
17:CQ:28:VAL:HG11	17:CQ:39:ARG:HD3	2.03	0.41
18:CR:41:SER:HB3	18:CR:51:GLN:HG2	2.03	0.41
18:CR:64:LEU:HB2	18:CR:66:LEU:HG	2.03	0.41
19:CS:46:LEU:H	19:CS:46:LEU:CD2	2.27	0.41
21:CU:52:VAL:HG22	21:CU:52:VAL:O	2.20	0.41
22:DA:17:G:H2'	22:DA:18:U:H6	1.85	0.41
22:DA:24:G:H2'	22:DA:25:U:H5'	2.01	0.41
22:DA:82:U:C2'	22:DA:83:A:C5'	2.93	0.41
22:DA:83:A:C6	22:DA:101:A:OP1	2.74	0.41
22:DA:89:A:C6	22:DA:90:U:C4	3.09	0.41
22:DA:104:A:HO2'	22:DA:105:C:C4'	2.32	0.41
22:DA:122:G:O2'	22:DA:123:G:H5'	2.21	0.41
22:DA:234:U:H6	22:DA:234:U:C5'	2.33	0.41
22:DA:333:G:C2	22:DA:334:C:C6	3.08	0.41
22:DA:430:A:OP2	22:DA:431:U:H5	2.04	0.41
22:DA:445:C:O2'	22:DA:446:G:C8	2.65	0.41
22:DA:459:U:O2'	22:DA:460:A:H8	2.02	0.41
22:DA:557:C:H2'	22:DA:558:U:H6	1.86	0.41
22:DA:579:G:C2	22:DA:1262:A:C5	3.09	0.41
22:DA:606:U:OP1	26:DE:99:LYS:HD3	2.21	0.41
22:DA:625:G:C6	22:DA:626:A:N7	2.89	0.41
22:DA:684:G:H5'	50:D2:16:HIS:NE2	2.35	0.41
22:DA:813:U:H2'	22:DA:814:C:H6	1.86	0.41
22:DA:855:G:H21	44:DW:23:LYS:CG	2.33	0.41
22:DA:947:A:H2'	22:DA:948:C:C5	2.56	0.41
22:DA:976:G:C2	22:DA:977:G:C8	3.09	0.41
22:DA:982:C:C5'	22:DA:983:A:OP1	2.69	0.41
22:DA:1042:G:C6	22:DA:1043:C:C4	3.09	0.41
22:DA:1048:A:C5	22:DA:1111:A:C2	3.09	0.41
22:DA:1062:G:OP1	22:DA:1070:A:C4'	2.65	0.41
22:DA:1070:A:H4'	22:DA:1071:G:H5'	2.03	0.41
22:DA:1203:U:N3	22:DA:1204:A:N6	2.68	0.41
22:DA:1249:U:O2'	22:DA:1250:G:OP2	2.28	0.41
22:DA:1288:G:C5	22:DA:1327:A:C6	3.08	0.41
22:DA:1342:A:H5'	22:DA:1398:C:OP1	2.20	0.41
22:DA:1387:A:O2'	22:DA:1388:G:OP2	2.35	0.41
22:DA:1528:A:H2'	22:DA:1529:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1569:A:OP1	22:DA:1569:A:H4'	2.21	0.41
22:DA:1572:A:H2'	22:DA:1573:G:C8	2.55	0.41
22:DA:1608:A:C5	22:DA:1611:C:N4	2.89	0.41
22:DA:1655:A:C4'	25:DD:118:PHE:CE1	3.03	0.41
22:DA:1773:A:C2'	22:DA:1774:C:H5'	2.51	0.41
22:DA:1797:G:H2'	22:DA:1798:U:H5'	2.03	0.41
22:DA:1826:G:C5	22:DA:1827:U:C4	3.09	0.41
22:DA:1869:G:H5'	22:DA:1870:C:OP2	2.21	0.41
22:DA:1925:C:C6	22:DA:1925:C:C3'	3.04	0.41
22:DA:1945:G:H8	22:DA:1945:G:O5'	2.04	0.41
22:DA:1982:U:O2'	22:DA:1983:G:C5'	2.68	0.41
22:DA:2014:A:H2	22:DA:2613:U:O2	2.04	0.41
22:DA:2046:G:OP1	48:D0:11:LYS:HE3	2.20	0.41
22:DA:2154:A:C8	22:DA:2155:U:C5	3.09	0.41
22:DA:2184:A:H8	22:DA:2184:A:O5'	2.03	0.41
22:DA:2204:G:N3	22:DA:2205:A:C8	2.89	0.41
22:DA:2298:A:C2'	22:DA:2299:U:C6	3.03	0.41
22:DA:2307:G:O2'	22:DA:2308:G:C8	2.71	0.41
22:DA:2323:G:C6	22:DA:2324:U:C4	3.09	0.41
22:DA:2333:A:N1	22:DA:2335:A:N6	2.69	0.41
22:DA:2345:G:C4	22:DA:2347:C:C5	3.09	0.41
22:DA:2345:G:C4	22:DA:2381:A:C2	3.09	0.41
22:DA:2416:C:H2'	22:DA:2417:C:H6	1.85	0.41
22:DA:2425:A:H4'	22:DA:2426:A:C5'	2.49	0.41
22:DA:2520:C:H2'	22:DA:2521:C:C6	2.56	0.41
22:DA:2583:G:C2'	22:DA:2584:U:H5'	2.51	0.41
22:DA:2667:C:H2'	22:DA:2668:G:H8	1.85	0.41
22:DA:2673:G:H2'	22:DA:2674:G:H8	1.86	0.41
22:DA:2700:A:C2	22:DA:2708:G:C2	3.09	0.41
22:DA:2773:C:C2	22:DA:2774:C:C6	3.08	0.41
22:DA:2784:U:H2'	22:DA:2785:C:H6	1.85	0.41
22:DA:2867:G:N3	22:DA:2867:G:O2'	2.44	0.41
57:DB:11:C:H3'	57:DB:12:C:H5'	2.01	0.41
57:DB:18:G:C2	57:DB:67:G:C6	3.08	0.41
57:DB:18:G:C6	57:DB:19:C:C4	3.09	0.41
57:DB:44:G:OP1	58:DF:91:ARG:NH1	2.54	0.41
57:DB:66:A:C2'	57:DB:67:G:OP2	2.69	0.41
57:DB:67:G:C4	57:DB:68:C:C5	3.09	0.41
57:DB:91:C:O2'	57:DB:92:C:H5'	2.21	0.41
24:DC:14:HIS:O	24:DC:15:VAL:C	2.63	0.41
24:DC:68:ARG:NH1	24:DC:115:ILE:HD12	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:DC:78:GLU:OE2	24:DC:94:LEU:HD22	2.21	0.41
24:DC:82:TYR:O	24:DC:84:PRO:CD	2.65	0.41
24:DC:123:ILE:HD12	24:DC:123:ILE:HA	1.87	0.41
24:DC:225:ASN:HB3	24:DC:226:PRO:HD2	2.02	0.41
25:DD:166:GLY:O	25:DD:167:ASN:HB3	2.19	0.41
58:DF:25:MET:C	58:DF:27:VAL:N	2.78	0.41
58:DF:144:LYS:HG3	58:DF:145:VAL:N	2.36	0.41
29:DH:2:GLN:O	29:DH:19:VAL:O	2.38	0.41
29:DH:62:LEU:C	29:DH:64:ALA:N	2.76	0.41
29:DH:80:ILE:CB	29:DH:101:ASP:OD2	2.65	0.41
30:DI:57:VAL:O	30:DI:58:ILE:CG1	2.67	0.41
30:DI:92:PRO:O	30:DI:93:ASN:CB	2.69	0.41
31:DJ:39:LYS:HE2	31:DJ:39:LYS:HB2	1.83	0.41
31:DJ:55:ILE:O	31:DJ:55:ILE:CG1	2.68	0.41
31:DJ:101:ILE:O	31:DJ:105:VAL:HG12	2.21	0.41
32:DK:69:VAL:HG12	32:DK:70:ARG:N	2.35	0.41
33:DL:79:LEU:HD23	33:DL:82:LEU:CD1	2.50	0.41
34:DM:69:PRO:O	34:DM:70:ASP:CB	2.68	0.41
34:DM:114:ARG:HA	34:DM:130:PHE:CE1	2.55	0.41
35:DN:10:LEU:HD13	35:DN:10:LEU:HA	1.92	0.41
36:DO:49:VAL:CG1	36:DO:81:ARG:HB3	2.51	0.41
37:DP:87:ARG:NH2	37:DP:110:LYS:O	2.54	0.41
37:DP:99:LEU:C	37:DP:101:GLU:H	2.28	0.41
38:DQ:61:ILE:CD1	38:DQ:61:ILE:H	2.34	0.41
38:DQ:87:VAL:HG11	39:DR:52:PRO:CD	2.51	0.41
38:DQ:93:ILE:C	38:DQ:95:ALA:H	2.28	0.41
40:DS:44:ALA:O	40:DS:48:LYS:HB2	2.21	0.41
40:DS:59:GLU:OE1	40:DS:66:ILE:HG23	2.21	0.41
41:DT:87:LEU:HD23	41:DT:88:LYS:H	1.80	0.41
43:DV:4:ILE:HD12	43:DV:63:ILE:CD1	2.51	0.41
43:DV:29:ILE:HG13	43:DV:88:HIS:CE1	2.55	0.41
43:DV:40:ILE:H	43:DV:40:ILE:HD13	1.86	0.41
44:DW:45:HIS:O	44:DW:46:ALA:CB	2.66	0.41
45:DX:35:HIS:O	45:DX:47:THR:HA	2.21	0.41
46:DY:15:ASN:O	46:DY:19:LEU:HD13	2.21	0.41
48:D0:55:ALA:HB3	48:D0:56:LYS:NZ	2.35	0.41
51:D3:14:LYS:O	51:D3:21:PHE:O	2.38	0.41
51:D3:28:LEU:O	51:D3:29:ARG:CB	2.68	0.41
1:AA:32:A:C2	1:AA:33:A:C5	3.09	0.41
1:AA:92:U:O2'	1:AA:93:U:C5'	2.69	0.41
1:AA:110:C:O2'	1:AA:111:G:O5'	2.39	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:137:U:O2	1:AA:137:U:H2'	2.19	0.41
1:AA:221:C:C2	1:AA:222:C:C5	3.09	0.41
1:AA:339:C:N3	1:AA:351:G:O6	2.54	0.41
1:AA:414:A:O2'	1:AA:415:A:O4'	2.39	0.41
1:AA:414:A:N6	1:AA:431:A:N3	2.69	0.41
1:AA:430:A:C2	1:AA:431:A:C8	3.09	0.41
1:AA:586:C:O2'	1:AA:587:G:H5'	2.21	0.41
1:AA:613:C:H2'	1:AA:614:C:H6	1.86	0.41
1:AA:640:A:H2'	1:AA:641:U:H5'	2.02	0.41
1:AA:705:G:C2'	1:AA:706:A:H5'	2.51	0.41
1:AA:773:G:C2'	1:AA:774:G:O5'	2.69	0.41
1:AA:807:A:C5	1:AA:808:C:C5	3.09	0.41
1:AA:1063:C:H2'	1:AA:1064:G:H8	1.76	0.41
1:AA:1157:A:N7	1:AA:1180:A:N6	2.68	0.41
1:AA:1452:C:H5'	1:AA:1453:G:C6	2.56	0.41
2:AB:20:ARG:HB3	2:AB:21:TYR:H	1.66	0.41
2:AB:171:ALA:O	2:AB:172:ILE:C	2.64	0.41
3:AC:190:THR:O	3:AC:192:TYR:N	2.54	0.41
4:AD:112:GLU:O	4:AD:113:ALA:C	2.64	0.41
7:AG:85:GLN:O	7:AG:85:GLN:CG	2.69	0.41
11:AK:124:LYS:HD2	21:AU:34:ARG:NH2	2.36	0.41
20:AT:27:MET:SD	20:AT:66:ILE:HD13	2.61	0.41
20:AT:74:HIS:O	20:AT:75:LYS:C	2.64	0.41
22:BA:38:A:N1	22:BA:442:G:C6	2.89	0.41
22:BA:43:G:C8	22:BA:43:G:H5'	2.56	0.41
22:BA:58:G:N2	22:BA:70:G:C4	2.89	0.41
22:BA:100:U:HO2'	22:BA:101:A:P	2.42	0.41
22:BA:182:A:C5	22:BA:183:C:C4	3.09	0.41
22:BA:265:A:N6	22:BA:428:A:C1'	2.84	0.41
22:BA:322:A:H2	22:BA:339:U:O4	2.03	0.41
22:BA:960:A:N6	22:BA:962:G:C2	2.89	0.41
22:BA:1000:A:C6	22:BA:1155:A:N7	2.89	0.41
22:BA:1056:G:H5''	22:BA:1057:A:C5'	2.33	0.41
22:BA:1344:U:N3	22:BA:1385:A:C8	2.89	0.41
22:BA:1405:U:N3	22:BA:1406:U:C4	2.89	0.41
22:BA:1604:C:H5''	62:BA:3403:HOH:O	2.21	0.41
22:BA:1748:C:H2'	22:BA:1749:A:C8	2.55	0.41
22:BA:1912:A:N1	22:BA:1919:A:C5	2.89	0.41
22:BA:2531:A:N7	28:BG:174:LYS:NZ	2.66	0.41
22:BA:2564:A:OP1	22:BA:2648:G:H4'	2.21	0.41
22:BA:2729:G:H2'	22:BA:2730:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:2748:A:C2	22:BA:2757:A:C5	3.09	0.41
22:BA:2819:G:H2'	22:BA:2821:A:N7	2.36	0.41
22:BA:2835:A:H61	22:BA:2878:U:H2'	1.86	0.41
24:BC:35:LYS:HB3	24:BC:35:LYS:HE3	1.20	0.41
25:BD:105:LYS:HA	25:BD:177:VAL:CG2	2.51	0.41
26:BE:200:LEU:N	26:BE:200:LEU:CD2	2.84	0.41
28:BG:24:THR:C	28:BG:25:ILE:HG13	2.46	0.41
28:BG:153:PRO:HB3	28:BG:168:VAL:HG12	2.03	0.41
29:BH:25:TYR:CD2	29:BH:30:LEU:HD11	2.56	0.41
30:BI:90:GLY:C	30:BI:92:PRO:HD3	2.46	0.41
31:BJ:123:LYS:N	31:BJ:123:LYS:CD	2.84	0.41
34:BM:10:ARG:HB3	34:BM:11:LYS:HG3	2.02	0.41
34:BM:76:LYS:HA	34:BM:77:PRO:HD3	1.96	0.41
34:BM:94:ALA:O	34:BM:96:ILE:HG23	2.21	0.41
37:BP:44:GLY:HA3	37:BP:61:ARG:O	2.21	0.41
37:BP:50:ARG:O	37:BP:51:ASN:CB	2.66	0.41
37:BP:50:ARG:HG3	37:BP:57:ALA:C	2.45	0.41
37:BP:73:PHE:N	37:BP:73:PHE:CD2	2.89	0.41
37:BP:95:LYS:HG2	37:BP:97:TYR:CZ	2.56	0.41
37:BP:96:LEU:HD12	37:BP:96:LEU:HA	1.65	0.41
38:BQ:14:LYS:O	38:BQ:15:LYS:C	2.62	0.41
44:BW:37:VAL:HG11	44:BW:55:ASP:HB2	2.03	0.41
44:BW:47:GLY:C	44:BW:49:ASN:N	2.60	0.41
46:BY:18:LEU:HD13	46:BY:18:LEU:O	2.20	0.41
47:BZ:29:ARG:CG	47:BZ:29:ARG:NH2	2.82	0.41
53:CA:96:U:O2'	53:CA:97:G:O5'	2.37	0.41
53:CA:251:G:C4'	53:CA:252:U:H5'	2.49	0.41
53:CA:451:A:HO2'	53:CA:452:A:P	2.43	0.41
53:CA:511:C:O2'	53:CA:512:U:H6	2.03	0.41
53:CA:737:C:H2'	53:CA:738:C:C6	2.56	0.41
53:CA:794:A:C5	53:CA:795:C:C4	3.09	0.41
53:CA:865:A:C2	53:CA:918:A:H4'	2.56	0.41
53:CA:934:C:N3	53:CA:1345:U:C4	2.89	0.41
53:CA:1075:U:H4'	53:CA:1101:A:N6	2.36	0.41
53:CA:1146:A:C4	53:CA:1147:C:C5	3.09	0.41
53:CA:1146:A:N1	53:CA:1147:C:N3	2.69	0.41
53:CA:1151:A:O2'	53:CA:1152:A:P	2.79	0.41
53:CA:1315:U:C6	53:CA:1316:G:N7	2.88	0.41
2:CB:25:LYS:O	2:CB:26:MET:HE3	2.21	0.41
6:CF:18:VAL:C	6:CF:22:ILE:HG12	2.45	0.41
8:CH:88:LYS:HA	8:CH:91:LEU:HD11	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:CH:127:TYR:N	8:CH:127:TYR:CD1	2.88	0.41
9:CI:90:ASP:HB3	9:CI:93:LEU:CD2	2.40	0.41
17:CQ:50:ASN:O	17:CQ:52:CYS:SG	2.78	0.41
22:DA:143:C:HO2'	22:DA:144:A:C1'	2.30	0.41
22:DA:219:A:C8	22:DA:220:G:N7	2.89	0.41
22:DA:374:A:C6	22:DA:401:A:C5	3.09	0.41
22:DA:379:G:C5	22:DA:396:G:O6	2.74	0.41
22:DA:383:C:H2'	22:DA:384:A:OP1	2.21	0.41
22:DA:493:G:H4'	40:DS:8:ARG:O	2.21	0.41
22:DA:518:G:C4	22:DA:519:U:C5	3.09	0.41
22:DA:660:C:H5''	26:DE:94:GLN:OE1	2.21	0.41
22:DA:677:A:C6	22:DA:678:C:N4	2.88	0.41
22:DA:718:A:C2	22:DA:719:C:C2	3.09	0.41
22:DA:1605:C:H5'	22:DA:1610:A:N6	2.35	0.41
22:DA:1681:G:O2'	22:DA:1762:A:C2'	2.69	0.41
22:DA:1765:U:H2'	22:DA:1766:G:C5'	2.50	0.41
22:DA:1868:C:N4	22:DA:1869:G:O6	2.54	0.41
22:DA:1912:A:C2	22:DA:1919:A:N6	2.89	0.41
22:DA:1969:A:O2'	22:DA:1972:G:N3	2.49	0.41
22:DA:2061:G:N3	22:DA:2063:C:C5	2.89	0.41
22:DA:2287:A:C6	22:DA:2289:G:C4	3.09	0.41
22:DA:2450:A:N1	22:DA:2451:A:C5	2.90	0.41
22:DA:2491:U:H5''	22:DA:2570:G:H5''	2.03	0.41
22:DA:2507:C:O2	22:DA:2507:C:H2'	2.20	0.41
22:DA:2516:A:C2	22:DA:2569:G:C2	3.08	0.41
22:DA:2579:C:H2'	22:DA:2580:U:O4'	2.20	0.41
22:DA:2700:A:C6	22:DA:2701:U:O4	2.74	0.41
22:DA:2798:U:H5'	22:DA:2800:A:C6	2.56	0.41
24:DC:35:LYS:O	24:DC:36:ASN:CB	2.68	0.41
24:DC:96:LYS:HD3	24:DC:96:LYS:HA	1.93	0.41
24:DC:129:LEU:N	24:DC:129:LEU:HD23	2.36	0.41
24:DC:152:GLN:HE21	24:DC:152:GLN:N	2.01	0.41
24:DC:226:PRO:O	24:DC:227:VAL:C	2.64	0.41
25:DD:14:ILE:HG13	37:DP:11:GLN:HE22	1.86	0.41
58:DF:11:VAL:C	58:DF:13:LYS:N	2.79	0.41
58:DF:12:VAL:O	58:DF:16:MET:CB	2.69	0.41
58:DF:128:SER:HA	58:DF:153:ILE:O	2.21	0.41
58:DF:151:LEU:C	58:DF:151:LEU:CD2	2.94	0.41
28:DG:137:LYS:C	28:DG:139:VAL:H	2.29	0.41
30:DI:5:GLN:OE1	30:DI:59:THR:CG2	2.64	0.41
30:DI:101:SER:C	30:DI:103:ALA:N	2.79	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DJ:45:THR:C	31:DJ:47:HIS:H	2.27	0.41
32:DK:51:LYS:HD2	32:DK:95:ILE:CG2	2.51	0.41
32:DK:60:ALA:HB2	32:DK:86:LEU:HD23	2.02	0.41
32:DK:64:ARG:O	32:DK:82:ASN:HA	2.21	0.41
34:DM:46:ILE:HD11	34:DM:69:PRO:HG3	2.02	0.41
37:DP:19:PHE:O	37:DP:20:ARG:CB	2.69	0.41
37:DP:82:SER:O	37:DP:83:ILE:HB	2.21	0.41
37:DP:113:LEU:C	37:DP:113:LEU:CD2	2.94	0.41
38:DQ:26:ALA:HB1	38:DQ:30:VAL:HB	2.03	0.41
40:DS:17:VAL:HG11	40:DS:103:ILE:CG1	2.46	0.41
41:DT:55:VAL:CG2	41:DT:56:GLU:N	2.83	0.41
46:DY:19:LEU:HA	46:DY:22:LEU:HD22	2.03	0.41
46:DY:21:LEU:HD23	46:DY:25:GLN:NE2	2.36	0.41
1:AA:243:A:C5'	1:AA:244:U:H5''	2.51	0.40
1:AA:342:C:H2'	1:AA:343:U:H5'	2.03	0.40
1:AA:393:A:H5'	1:AA:483:C:O2'	2.21	0.40
1:AA:446:G:O2'	1:AA:447:G:H5'	2.21	0.40
1:AA:475:C:O2'	1:AA:476:U:H5'	2.21	0.40
1:AA:622:A:H2'	1:AA:623:C:H5'	2.03	0.40
1:AA:742:G:C2'	1:AA:743:A:H5'	2.51	0.40
1:AA:807:A:N7	1:AA:808:C:C5	2.88	0.40
1:AA:849:G:C6	1:AA:850:U:C2	3.10	0.40
1:AA:975:A:H8	1:AA:1357:A:HO2'	1.66	0.40
1:AA:1084:G:C6	1:AA:1085:U:O4	2.74	0.40
1:AA:1157:A:N7	1:AA:1180:A:C6	2.89	0.40
1:AA:1452:C:O4'	1:AA:1453:G:N1	2.54	0.40
1:AA:1504:G:H3'	1:AA:1505:G:H5'	2.03	0.40
4:AD:168:THR:CG2	4:AD:183:ARG:NH2	2.84	0.40
5:AE:13:LYS:HD3	5:AE:116:VAL:CG1	2.51	0.40
5:AE:56:PRO:HG2	5:AE:57:ALA:H	1.85	0.40
5:AE:147:ASN:OD1	8:AH:95:MET:HE1	2.21	0.40
7:AG:31:VAL:C	7:AG:33:GLY:N	2.78	0.40
8:AH:78:SER:OG	8:AH:84:ILE:N	2.51	0.40
9:AI:54:VAL:O	9:AI:55:ASP:O	2.39	0.40
12:AL:38:THR:HA	12:AL:49:ARG:O	2.21	0.40
14:AN:81:ILE:O	14:AN:85:GLU:HG2	2.20	0.40
16:AP:4:ILE:HA	16:AP:20:VAL:O	2.21	0.40
16:AP:67:ILE:O	16:AP:67:ILE:HG22	2.22	0.40
18:AR:21:ASP:OD2	18:AR:23:LYS:HD2	2.21	0.40
20:AT:47:GLN:HE21	20:AT:82:ILE:CD1	2.33	0.40
21:AU:18:PHE:O	21:AU:18:PHE:HD2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:49:A:C5	22:BA:177:G:C6	3.08	0.40
22:BA:49:A:N6	22:BA:177:G:C4	2.89	0.40
22:BA:88:G:C2'	22:BA:89:A:H5'	2.50	0.40
22:BA:254:G:N7	51:B3:4:LYS:HE2	2.36	0.40
22:BA:265:A:N6	22:BA:428:A:N9	2.70	0.40
22:BA:319:G:N9	22:BA:333:G:N2	2.69	0.40
22:BA:464:U:H5'	50:B2:5:PHE:CD2	2.56	0.40
22:BA:475:C:C6	22:BA:509:C:C4	3.09	0.40
22:BA:503:A:C4'	22:BA:504:A:O5'	2.65	0.40
22:BA:548:G:C8	22:BA:548:G:C3'	3.03	0.40
22:BA:830:G:C4	22:BA:2448:A:C5	3.09	0.40
22:BA:877:A:N6	22:BA:899:A:C6	2.89	0.40
22:BA:920:A:C5	22:BA:921:C:C5	3.10	0.40
22:BA:1233:C:C4	22:BA:1234:U:C5	3.08	0.40
22:BA:1655:A:C6	22:BA:1656:C:C2	3.09	0.40
22:BA:1656:C:OP1	25:BD:141:ARG:NH1	2.47	0.40
22:BA:1737:G:C6	22:BA:1738:G:N2	2.90	0.40
22:BA:2052:A:C2	22:BA:2053:G:C8	3.09	0.40
22:BA:2149:U:O2'	22:BA:2150:C:P	2.79	0.40
22:BA:2151:U:N3	22:BA:2152:G:N7	2.69	0.40
22:BA:2180:U:C2'	22:BA:2181:U:C5	2.98	0.40
22:BA:2197:U:H2'	22:BA:2224:G:H1	1.86	0.40
22:BA:2261:C:C2	22:BA:2280:G:C2	3.09	0.40
22:BA:2320:U:H4'	22:BA:2321:U:C5'	2.49	0.40
22:BA:2409:G:C5	22:BA:2410:G:C8	3.09	0.40
22:BA:2570:G:H2'	22:BA:2571:U:H5'	2.03	0.40
22:BA:2637:U:C2	22:BA:2782:G:N2	2.89	0.40
22:BA:2701:U:H2'	22:BA:2702:G:OP1	2.21	0.40
22:BA:2778:A:H4'	22:BA:2779:U:OP2	2.22	0.40
27:BF:103:ILE:HG12	27:BF:103:ILE:H	1.56	0.40
28:BG:8:VAL:HG12	28:BG:49:LEU:N	2.35	0.40
28:BG:72:ASN:O	28:BG:76:ILE:HG22	2.21	0.40
28:BG:115:GLN:NE2	28:BG:115:GLN:O	2.53	0.40
29:BH:133:GLN:OE1	29:BH:133:GLN:CA	2.68	0.40
31:BJ:75:TYR:CD1	31:BJ:86:GLN:HB3	2.56	0.40
31:BJ:103:ILE:C	31:BJ:103:ILE:CD1	2.94	0.40
32:BK:98:ARG:O	32:BK:99:ILE:HD12	2.21	0.40
34:BM:42:THR:OG1	34:BM:45:GLN:HG3	2.22	0.40
34:BM:132:THR:HG22	34:BM:133:LYS:H	1.85	0.40
35:BN:19:ALA:O	35:BN:20:MET:C	2.64	0.40
35:BN:27:SER:O	35:BN:28:LEU:C	2.63	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:BN:75:ILE:HG13	35:BN:76:VAL:N	2.35	0.40
37:BP:33:GLU:OE2	37:BP:38:ARG:NH1	2.54	0.40
38:BQ:78:PHE:HE2	38:BQ:109:VAL:HA	1.86	0.40
39:BR:20:VAL:CG2	39:BR:22:LEU:HD21	2.50	0.40
39:BR:89:HIS:NE2	39:BR:91:GLN:HB2	2.36	0.40
42:BU:35:VAL:HG12	42:BU:38:ILE:HG13	2.02	0.40
44:BW:28:GLU:OE2	44:BW:28:GLU:CA	2.68	0.40
47:BZ:7:THR:CG2	47:BZ:34:THR:OG1	2.69	0.40
53:CA:54:C:H2'	53:CA:352:C:N4	2.35	0.40
53:CA:83:C:O2	53:CA:83:C:C2'	2.69	0.40
53:CA:149:A:H2'	53:CA:150:U:C6	2.56	0.40
53:CA:275:G:H4'	17:CQ:15:LYS:HB3	2.03	0.40
53:CA:503:C:OP1	12:CL:115:LYS:NZ	2.39	0.40
53:CA:563:A:C8	53:CA:567:G:O4'	2.75	0.40
53:CA:925:G:C4	53:CA:1392:G:N2	2.89	0.40
53:CA:989:U:C2	53:CA:990:C:C5	3.09	0.40
53:CA:1135:U:H3'	53:CA:1137:C:O2	2.20	0.40
53:CA:1258:G:H2'	53:CA:1259:C:C6	2.56	0.40
53:CA:1258:G:HO2'	53:CA:1259:C:H5'	1.86	0.40
3:CC:163:ARG:C	3:CC:164:THR:HG22	2.47	0.40
4:CD:10:LEU:N	4:CD:10:LEU:CD1	2.85	0.40
4:CD:34:GLU:HA	4:CD:34:GLU:OE1	2.21	0.40
5:CE:81:GLN:HB3	5:CE:82:HIS:H	1.54	0.40
5:CE:98:ALA:HB2	5:CE:123:LEU:HG	2.03	0.40
54:CG:55:LYS:HD2	54:CG:55:LYS:H	1.85	0.40
8:CH:100:ILE:CD1	8:CH:101:ALA:N	2.84	0.40
14:CN:41:TRP:CE3	14:CN:42:ASN:N	2.89	0.40
56:CP:4:ILE:HG21	56:CP:57:ILE:CD1	2.51	0.40
17:CQ:3:LYS:HZ2	17:CQ:6:THR:CG2	2.32	0.40
21:CU:3:ILE:O	21:CU:3:ILE:HG23	2.22	0.40
22:DA:16:C:H2'	22:DA:17:G:H8	1.86	0.40
22:DA:46:G:C2	22:DA:47:C:C4	3.09	0.40
22:DA:225:C:C4	22:DA:231:A:N6	2.90	0.40
22:DA:363:G:C2	22:DA:364:C:C5	3.09	0.40
22:DA:477:A:O2'	22:DA:478:A:C5'	2.69	0.40
22:DA:483:A:OP2	22:DA:484:C:C5	2.74	0.40
22:DA:623:C:H2'	22:DA:624:C:O4'	2.21	0.40
22:DA:819:A:O2'	22:DA:820:A:H5'	2.22	0.40
22:DA:908:C:OP1	34:DM:22:GLN:CG	2.69	0.40
22:DA:973:A:H4'	22:DA:974:G:OP2	2.20	0.40
22:DA:1206:G:O2'	22:DA:1207:C:C6	2.73	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1540:G:C2'	22:DA:1541:C:O5'	2.69	0.40
22:DA:1572:A:H8	22:DA:1572:A:O5'	2.04	0.40
22:DA:1612:C:O2'	22:DA:1613:G:O4'	2.33	0.40
22:DA:1961:C:C5	22:DA:1962:C:C4	3.09	0.40
22:DA:2024:G:C6	22:DA:2040:G:C2	3.10	0.40
22:DA:2331:G:O2'	44:DW:40:ARG:HG2	2.21	0.40
22:DA:2350:C:H2'	22:DA:2351:G:O4'	2.21	0.40
22:DA:2353:G:N3	44:DW:30:VAL:HG11	2.36	0.40
22:DA:2520:C:C2	22:DA:2521:C:C5	3.10	0.40
22:DA:2591:C:H2'	22:DA:2592:G:H8	1.86	0.40
22:DA:2642:G:C2'	22:DA:2643:G:H5'	2.51	0.40
22:DA:2748:A:H2'	22:DA:2749:A:O4'	2.21	0.40
22:DA:2815:C:O2	48:D0:40:HIS:CE1	2.74	0.40
22:DA:2836:U:C2	22:DA:2837:A:N7	2.89	0.40
57:DB:43:C:O2'	57:DB:45:A:N7	2.47	0.40
24:DC:143:VAL:HG12	24:DC:144:GLU:O	2.21	0.40
25:DD:34:VAL:HG22	25:DD:92:VAL:O	2.20	0.40
58:DF:93:GLU:OE2	58:DF:93:GLU:HA	2.20	0.40
28:DG:88:LEU:HG	28:DG:128:THR:O	2.20	0.40
32:DK:113:MET:O	32:DK:116:ILE:HG13	2.21	0.40
33:DL:17:LYS:CE	33:DL:19:LEU:HD13	2.51	0.40
34:DM:125:PRO:O	34:DM:126:ILE:HG23	2.21	0.40
36:DO:63:LYS:C	36:DO:63:LYS:CD	2.93	0.40
37:DP:29:VAL:HG11	37:DP:73:PHE:HE1	1.86	0.40
37:DP:103:THR:O	37:DP:104:GLY:C	2.65	0.40
37:DP:105:LYS:HA	37:DP:105:LYS:HD3	1.91	0.40
38:DQ:63:ARG:O	38:DQ:66:ALA:N	2.53	0.40
38:DQ:82:LEU:HB3	38:DQ:88:GLU:OE2	2.21	0.40
39:DR:49:ILE:O	39:DR:49:ILE:CG1	2.68	0.40
40:DS:1:MET:N	40:DS:1:MET:CE	2.77	0.40
41:DT:74:ILE:HG23	41:DT:75:GLY:N	2.36	0.40
46:DY:17:GLU:CD	46:DY:53:VAL:HB	2.46	0.40
1:AA:9:G:OP2	5:AE:125:LYS:HG3	2.21	0.40
1:AA:105:G:H2'	1:AA:106:C:H6	1.86	0.40
1:AA:112:G:N1	1:AA:330:C:C4	2.89	0.40
1:AA:202:G:H21	1:AA:466:A:N6	2.00	0.40
1:AA:213:G:H2'	1:AA:214:C:H5'	2.02	0.40
1:AA:251:G:C4'	1:AA:252:U:O5'	2.53	0.40
1:AA:427:U:C4	1:AA:428:G:C6	3.10	0.40
1:AA:579:A:C2	1:AA:763:G:N3	2.89	0.40
1:AA:1216:A:OP1	14:AN:4:SER:HB3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1411:C:N3	1:AA:1412:C:C5	2.89	0.40
2:AB:70:GLY:HA2	2:AB:163:ILE:HG22	2.04	0.40
3:AC:28:PHE:O	3:AC:28:PHE:CD2	2.75	0.40
4:AD:200:VAL:HG11	5:AE:102:THR:HG23	2.04	0.40
5:AE:21:SER:OG	5:AE:28:ARG:HB2	2.21	0.40
5:AE:81:GLN:NE2	5:AE:81:GLN:N	2.69	0.40
5:AE:104:ILE:HD11	5:AE:111:ARG:HA	2.03	0.40
9:AI:88:GLU:HG3	9:AI:89:TYR:H	1.86	0.40
14:AN:17:ASP:O	14:AN:18:LYS:C	2.65	0.40
14:AN:29:ILE:HG23	14:AN:34:ASN:HD21	1.86	0.40
17:AQ:20:ILE:HG22	17:AQ:47:ASP:OD1	2.20	0.40
21:AU:3:ILE:HD13	21:AU:19:LYS:NZ	2.37	0.40
22:BA:186:G:H2'	22:BA:187:G:C8	2.44	0.40
22:BA:388:G:O2'	22:BA:389:G:C8	2.72	0.40
22:BA:654:A:H3'	22:BA:654:A:N3	2.36	0.40
22:BA:665:U:H2'	22:BA:666:A:H8	1.86	0.40
22:BA:727:A:OP1	22:BA:1431:A:O2'	2.31	0.40
22:BA:912:C:C4	22:BA:913:U:O4	2.74	0.40
22:BA:1004:U:O4'	22:BA:1010:A:C5	2.74	0.40
22:BA:1252:G:N3	38:BQ:32:ARG:CG	2.80	0.40
22:BA:1287:A:O2'	22:BA:1288:G:H5'	2.21	0.40
22:BA:1383:A:C2	22:BA:1405:U:O2	2.75	0.40
22:BA:1471:G:C6	22:BA:1472:C:C4	3.09	0.40
22:BA:1654:A:O2'	22:BA:1655:A:C5'	2.70	0.40
22:BA:1713:A:O2'	22:BA:1715:G:H5'	2.20	0.40
22:BA:1773:A:H2'	22:BA:1774:C:C5'	2.52	0.40
22:BA:1973:G:C6	22:BA:1974:C:C4	3.10	0.40
22:BA:1983:G:C6	22:BA:1984:G:N7	2.89	0.40
22:BA:2379:G:H4'	36:BO:21:LEU:HD11	2.04	0.40
22:BA:2422:C:C4	22:BA:2424:C:N4	2.89	0.40
22:BA:2474:U:H5''	22:BA:2475:C:OP2	2.20	0.40
22:BA:2674:G:H2'	22:BA:2675:A:C8	2.56	0.40
22:BA:2711:A:N6	22:BA:2714:G:C5	2.89	0.40
22:BA:2816:G:O3'	35:BN:99:LYS:HE2	2.21	0.40
22:BA:2849:U:H6	22:BA:2849:U:H2'	1.74	0.40
23:BB:43:C:O2	27:BF:91:ARG:NH2	2.52	0.40
24:BC:20:ASN:CG	24:BC:23:LEU:CD2	2.94	0.40
24:BC:94:LEU:HA	24:BC:100:ARG:HA	2.03	0.40
24:BC:170:TYR:CE2	24:BC:184:GLU:HG2	2.56	0.40
24:BC:230:PRO:HB2	24:BC:244:VAL:HG23	2.02	0.40
24:BC:244:VAL:HB	24:BC:249:VAL:O	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BE:83:VAL:HG11	26:BE:86:ALA:HA	2.03	0.40
27:BF:46:LYS:H	27:BF:46:LYS:HE3	1.86	0.40
29:BH:111:ALA:C	29:BH:112:LYS:HG2	2.46	0.40
30:BI:41:PHE:N	30:BI:68:PHE:HZ	2.19	0.40
30:BI:52:LEU:HD11	30:BI:81:LYS:HE2	2.03	0.40
30:BI:124:MET:O	30:BI:124:MET:HE2	2.21	0.40
30:BI:126:ARG:HD3	30:BI:126:ARG:H	1.86	0.40
31:BJ:13:ARG:HA	31:BJ:13:ARG:HD3	1.95	0.40
32:BK:40:LYS:NZ	32:BK:89:ASN:HD21	2.19	0.40
35:BN:67:PHE:HE2	35:BN:71:ARG:NH1	2.20	0.40
39:BR:49:ILE:HG22	39:BR:54:VAL:N	2.36	0.40
52:B4:10:LEU:HD12	52:B4:33:HIS:CG	2.56	0.40
53:CA:56:U:H2'	53:CA:57:G:C8	2.56	0.40
53:CA:76:G:N2	53:CA:95:C:C2	2.89	0.40
53:CA:110:C:H2'	53:CA:111:G:O4'	2.22	0.40
53:CA:232:G:H2'	53:CA:233:C:O4'	2.21	0.40
53:CA:461:A:N3	53:CA:461:A:C2'	2.83	0.40
53:CA:477:C:H3'	53:CA:478:A:C8	2.56	0.40
53:CA:1009:U:H2'	53:CA:1010:U:H6	1.84	0.40
53:CA:1215:G:C2	53:CA:1216:A:N7	2.90	0.40
53:CA:1236:A:H2'	53:CA:1237:C:H6	1.86	0.40
53:CA:1256:A:C4	53:CA:1278:G:C6	3.09	0.40
53:CA:1487:G:O5'	53:CA:1487:G:H8	2.04	0.40
2:CB:17:HIS:CG	2:CB:18:GLN:N	2.86	0.40
2:CB:150:ILE:HD11	2:CB:153:MET:HE2	1.98	0.40
4:CD:8:LEU:HD22	4:CD:21:LYS:HD2	2.01	0.40
5:CE:80:LEU:CD2	5:CE:146:MET:HE1	2.51	0.40
6:CF:3:HIS:CB	6:CF:92:THR:HG23	2.50	0.40
8:CH:33:VAL:O	8:CH:35:ILE:N	2.54	0.40
9:CI:52:GLU:HA	9:CI:52:GLU:OE2	2.21	0.40
11:CK:15:VAL:HG12	11:CK:17:ASP:O	2.20	0.40
11:CK:116:PRO:C	11:CK:118:ASN:H	2.29	0.40
15:CO:63:ARG:O	15:CO:64:LYS:C	2.64	0.40
18:CR:27:THR:O	18:CR:30:ASN:HB3	2.21	0.40
22:DA:142:A:C5	22:DA:143:C:C4	3.09	0.40
22:DA:199:A:N6	22:DA:2433:A:H2'	2.36	0.40
22:DA:285:G:C6	22:DA:356:G:C6	3.09	0.40
22:DA:343:C:O2	22:DA:343:C:H2'	2.21	0.40
22:DA:503:A:C5	22:DA:506:G:C5	3.09	0.40
22:DA:636:G:H5'	22:DA:639:U:OP1	2.21	0.40
22:DA:690:G:H1'	22:DA:779:U:O3'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:732:C:H2'	22:DA:733:G:O4'	2.22	0.40
22:DA:770:G:H1'	22:DA:1379:U:C4	2.56	0.40
22:DA:786:C:O2'	22:DA:787:C:H5'	2.21	0.40
22:DA:996:A:C5	22:DA:1160:G:C2	3.09	0.40
22:DA:1048:A:C5	22:DA:1049:C:N4	2.89	0.40
22:DA:1109:C:N4	22:DA:1110:G:N1	2.68	0.40
22:DA:1127:A:H8	22:DA:1127:A:H2'	1.75	0.40
22:DA:1328:A:C2'	22:DA:1330:C:N4	2.83	0.40
22:DA:1534:U:C2'	22:DA:1536:C:O2	2.65	0.40
22:DA:1656:C:C2'	22:DA:1657:U:H5'	2.51	0.40
22:DA:1663:G:C6	22:DA:1992:G:N7	2.89	0.40
22:DA:1695:G:N3	22:DA:1695:G:C2'	2.84	0.40
22:DA:1710:G:H2'	22:DA:1711:A:C8	2.57	0.40
22:DA:1910:G:N2	22:DA:1921:G:C4	2.88	0.40
22:DA:1914:C:O2	22:DA:1914:C:O4'	2.40	0.40
22:DA:1956:U:O2'	22:DA:1957:C:H5'	2.21	0.40
22:DA:2290:G:H2'	22:DA:2291:U:H6	1.83	0.40
22:DA:2385:C:O2'	22:DA:2386:A:O5'	2.39	0.40
22:DA:2851:A:O2'	22:DA:2852:G:O4'	2.36	0.40
22:DA:2868:A:C2	22:DA:2869:G:C4	3.09	0.40
24:DC:181:ARG:NH1	24:DC:265:PHE:CD1	2.88	0.40
26:DE:109:LEU:HD12	26:DE:109:LEU:HA	1.72	0.40
26:DE:147:LEU:HB2	26:DE:186:VAL:HA	2.04	0.40
29:DH:78:VAL:CG1	29:DH:144:VAL:HG12	2.49	0.40
29:DH:83:LYS:CG	29:DH:149:GLU:HB2	2.50	0.40
29:DH:89:LYS:HB2	29:DH:90:LEU:H	1.78	0.40
32:DK:88:ASN:OD1	32:DK:95:ILE:HG12	2.21	0.40
33:DL:4:ASN:HD22	33:DL:4:ASN:HA	1.58	0.40
33:DL:29:LYS:O	33:DL:30:THR:CB	2.68	0.40
34:DM:108:VAL:HG23	34:DM:109:PRO:CD	2.48	0.40
35:DN:103:ARG:CG	35:DN:104:ALA:N	2.83	0.40
36:DO:39:VAL:HB	36:DO:49:VAL:O	2.20	0.40
37:DP:105:LYS:CD	37:DP:108:ARG:NH2	2.84	0.40
39:DR:49:ILE:C	39:DR:51:VAL:N	2.78	0.40
42:DU:102:ILE:HD12	42:DU:102:ILE:HA	1.95	0.40
43:DV:14:LYS:CG	43:DV:18:ARG:HD2	2.47	0.40
43:DV:29:ILE:CD1	43:DV:29:ILE:C	2.93	0.40
44:DW:24:ARG:HA	44:DW:66:VAL:H	1.86	0.40
45:DX:4:CYS:HB3	45:DX:9:LYS:H	1.87	0.40
46:DY:4:LYS:HD3	46:DY:4:LYS:N	2.29	0.40
1:AA:66:A:O4'	1:AA:173:U:C5	2.75	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:180:U:H2'	1:AA:181:A:O5'	2.22	0.40
1:AA:339:C:C4	1:AA:340:U:C5	3.10	0.40
1:AA:404:G:N3	1:AA:498:A:C2	2.89	0.40
1:AA:524:G:C5	1:AA:525:C:C5	3.09	0.40
1:AA:592:G:H2'	1:AA:593:U:C6	2.57	0.40
1:AA:734:G:H2'	1:AA:735:C:H6	1.85	0.40
1:AA:983:A:N3	1:AA:983:A:H2'	2.36	0.40
1:AA:1030:U:H5'	1:AA:1031:C:O2	2.21	0.40
1:AA:1032:G:H2'	1:AA:1033:G:C4'	2.52	0.40
1:AA:1153:G:H2'	1:AA:1154:G:O5'	2.21	0.40
1:AA:1169:A:H2'	1:AA:1170:A:C8	2.56	0.40
1:AA:1319:A:C5	1:AA:1323:G:C4	3.09	0.40
1:AA:1498:U:C5'	1:AA:1499:A:OP1	2.70	0.40
2:AB:14:HIS:O	2:AB:14:HIS:CD2	2.74	0.40
2:AB:42:LEU:CD2	2:AB:43:GLU:HG3	2.50	0.40
3:AC:58:ARG:HA	3:AC:62:SER:O	2.21	0.40
3:AC:137:VAL:CG1	3:AC:169:GLU:HB3	2.50	0.40
3:AC:158:GLY:HA2	3:AC:192:TYR:CE1	2.56	0.40
3:AC:185:THR:CG2	3:AC:186:SER:N	2.83	0.40
4:AD:57:LYS:HG2	4:AD:202:LEU:CD2	2.51	0.40
5:AE:121:ASN:ND2	5:AE:122:VAL:N	2.69	0.40
6:AF:3:HIS:HD2	6:AF:92:THR:HG22	1.85	0.40
6:AF:22:ILE:O	6:AF:23:GLU:C	2.64	0.40
9:AI:62:LEU:HD23	9:AI:62:LEU:N	2.36	0.40
11:AK:34:THR:HG1	11:AK:39:ASN:N	2.19	0.40
11:AK:108:ASN:ND2	21:AU:6:ARG:HB3	2.36	0.40
13:AM:44:ILE:O	13:AM:44:ILE:CG2	2.70	0.40
14:AN:79:SER:O	14:AN:81:ILE:N	2.54	0.40
15:AO:27:GLN:O	15:AO:31:LEU:HG	2.21	0.40
15:AO:53:ARG:O	15:AO:54:GLY:C	2.63	0.40
18:AR:41:SER:C	18:AR:43:ILE:N	2.77	0.40
19:AS:46:LEU:HB3	19:AS:47:THR:H	1.76	0.40
20:AT:10:ALA:O	20:AT:13:SER:N	2.54	0.40
22:BA:239:C:C4	22:BA:240:C:N3	2.90	0.40
22:BA:242:G:O2'	51:B3:5:THR:HG23	2.22	0.40
22:BA:304:U:H2'	22:BA:305:C:C6	2.56	0.40
22:BA:387:U:H4'	22:BA:388:G:C5'	2.51	0.40
22:BA:513:A:C2	22:BA:514:A:C4	3.10	0.40
22:BA:672:C:H4'	26:BE:84:THR:HG21	2.03	0.40
22:BA:802:A:C2	22:BA:803:U:C2	3.09	0.40
22:BA:1135:C:H6	22:BA:1135:C:H5''	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BA:1148:U:C6	22:BA:1148:U:C3'	3.05	0.40
22:BA:1243:C:H2'	22:BA:1244:A:O4'	2.21	0.40
22:BA:1265:A:O4'	22:BA:1267:U:C6	2.73	0.40
22:BA:1392:A:H2'	22:BA:1393:A:C8	2.56	0.40
22:BA:1429:G:N3	22:BA:1568:G:C2	2.90	0.40
22:BA:1821:A:H2'	22:BA:1822:C:H6	1.82	0.40
22:BA:2314:A:C2'	22:BA:2315:G:H5'	2.51	0.40
22:BA:2480:C:C2'	22:BA:2480:C:O2	2.68	0.40
22:BA:2515:C:O5'	22:BA:2515:C:H6	2.05	0.40
22:BA:2667:C:N3	28:BG:109:SER:OG	2.50	0.40
22:BA:2846:G:N2	22:BA:2871:U:H1'	2.36	0.40
23:BB:16:G:C6	23:BB:69:G:C2	3.09	0.40
23:BB:112:G:H2'	23:BB:113:C:H6	1.85	0.40
26:BE:23:PHE:CE1	26:BE:28:VAL:HG11	2.56	0.40
26:BE:61:ARG:H	26:BE:61:ARG:HG2	1.54	0.40
26:BE:73:ILE:O	26:BE:73:ILE:CG1	2.69	0.40
27:BF:168:LEU:C	27:BF:168:LEU:CD1	2.94	0.40
28:BG:84:LYS:CG	28:BG:132:LEU:C	2.94	0.40
30:BI:56:VAL:HG22	30:BI:68:PHE:HB2	2.03	0.40
31:BJ:44:TYR:HD2	38:BQ:63:ARG:CB	2.34	0.40
33:BL:62:PRO:HD2	51:B3:24:LYS:HB3	2.03	0.40
33:BL:96:LYS:HA	33:BL:101:ILE:CG2	2.43	0.40
35:BN:63:ARG:O	35:BN:64:ARG:C	2.64	0.40
36:BO:19:GLN:O	36:BO:20:GLU:C	2.64	0.40
37:BP:15:ASP:OD1	37:BP:15:ASP:N	2.55	0.40
43:BV:66:ASP:O	43:BV:66:ASP:CG	2.64	0.40
45:BX:5:GLN:NE2	45:BX:49:ARG:N	2.57	0.40
46:BY:44:LYS:HE3	46:BY:44:LYS:HB2	1.90	0.40
53:CA:175:C:O2	53:CA:1447:A:C2	2.74	0.40
53:CA:278:G:H21	53:CA:279:A:H62	1.68	0.40
53:CA:330:C:O2'	53:CA:331:G:C5'	2.69	0.40
53:CA:441:A:H61	53:CA:493:A:N6	2.16	0.40
53:CA:495:A:N1	53:CA:496:A:N6	2.69	0.40
53:CA:543:U:C2	53:CA:544:G:C8	3.09	0.40
53:CA:580:C:C4	53:CA:581:G:C6	3.09	0.40
53:CA:688:G:C5	53:CA:700:G:C2	3.09	0.40
53:CA:881:G:H2'	53:CA:882:C:O4'	2.21	0.40
53:CA:928:G:C2	53:CA:1390:U:O2	2.74	0.40
53:CA:1014:A:OP2	19:CS:17:LYS:NZ	2.40	0.40
53:CA:1064:G:N2	53:CA:1190:G:HO2'	2.19	0.40
53:CA:1096:C:N3	53:CA:1097:C:C5	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:1106:G:O2'	3:CC:168:ARG:NH1	2.55	0.40
53:CA:1129:C:C5	53:CA:1139:G:C5	3.10	0.40
53:CA:1250:A:C2	53:CA:1287:A:C6	3.08	0.40
53:CA:1287:A:O2'	53:CA:1288:A:O5'	2.39	0.40
53:CA:1507:A:H2'	53:CA:1508:A:C8	2.55	0.40
4:CD:107:GLY:N	4:CD:157:ALA:CB	2.84	0.40
4:CD:143:SER:CB	4:CD:178:GLU:HG3	2.40	0.40
6:CF:9:MET:HE2	6:CF:59:TYR:CE2	2.56	0.40
6:CF:33:GLU:N	6:CF:33:GLU:OE1	2.54	0.40
54:CG:57:GLU:C	54:CG:59:GLU:H	2.29	0.40
8:CH:54:THR:C	8:CH:56:PRO:HD3	2.45	0.40
10:CJ:44:THR:HG23	10:CJ:70:HIS:ND1	2.36	0.40
14:CN:61:ASN:C	14:CN:62:ARG:HG3	2.46	0.40
15:CO:70:LYS:HA	15:CO:77:TYR:HB2	2.03	0.40
22:DA:30:G:C5	22:DA:31:C:C4	3.10	0.40
22:DA:160:A:N6	22:DA:167:A:H1'	2.36	0.40
22:DA:197:A:N6	22:DA:2430:A:N3	2.69	0.40
22:DA:197:A:N6	22:DA:2430:A:C2'	2.57	0.40
22:DA:319:G:C6	22:DA:320:A:C4	3.09	0.40
22:DA:405:U:C3'	22:DA:406:G:H5'	2.50	0.40
22:DA:671:C:H6	22:DA:671:C:H2'	1.42	0.40
22:DA:993:G:O2'	39:DR:91:GLN:HG2	2.21	0.40
22:DA:1044:C:C4	22:DA:1112:G:O6	2.74	0.40
22:DA:1285:A:C6	22:DA:1329:U:C5	3.09	0.40
22:DA:1936:A:H2	22:DA:1943:U:C4	2.39	0.40
22:DA:2235:G:C6	22:DA:2236:U:C4	3.10	0.40
22:DA:2238:G:H4'	22:DA:2239:G:OP1	2.22	0.40
22:DA:2667:C:O2'	22:DA:2668:G:O4'	2.39	0.40
57:DB:89:U:H5''	57:DB:90:C:C5	2.57	0.40
26:DE:29:HIS:C	26:DE:32:VAL:HG22	2.46	0.40
58:DF:31:GLU:C	58:DF:95:MET:CE	2.94	0.40
58:DF:33:ILE:HB	58:DF:90:LEU:HD23	2.02	0.40
58:DF:102:LEU:C	58:DF:103:ILE:CD1	2.91	0.40
58:DF:151:LEU:HD13	58:DF:151:LEU:N	2.37	0.40
28:DG:117:PRO:CG	28:DG:143:VAL:HG11	2.51	0.40
32:DK:1:MET:HG3	32:DK:1:MET:O	2.21	0.40
34:DM:78:LEU:C	34:DM:80:VAL:H	2.29	0.40
35:DN:33:ILE:HA	35:DN:114:GLU:HB2	2.04	0.40
35:DN:56:LYS:HA	35:DN:84:GLY:HA3	2.00	0.40
36:DO:48:LEU:HD23	36:DO:48:LEU:HA	1.98	0.40
37:DP:47:ILE:HD11	37:DP:70:GLU:CG	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:DQ:89:ILE:C	38:DQ:91:ARG:N	2.80	0.40
39:DR:19:THR:O	39:DR:20:VAL:HG23	2.21	0.40
40:DS:26:GLY:O	40:DS:27:LYS:C	2.65	0.40
40:DS:62:ASP:OD1	40:DS:62:ASP:N	2.54	0.40
40:DS:95:ARG:HG2	40:DS:97:LEU:CD2	2.52	0.40
42:DU:12:VAL:HG21	42:DU:38:ILE:HG12	2.03	0.40
42:DU:82:VAL:CG2	42:DU:83:GLY:H	2.33	0.40
43:DV:64:VAL:HG13	43:DV:68:LYS:O	2.22	0.40
48:D0:32:THR:HG21	48:D0:47:TYR:HE2	1.85	0.40
49:D1:9:LYS:HA	49:D1:20:TYR:O	2.21	0.40
51:D3:63:TYR:O	51:D3:64:ALA:O	2.39	0.40
1:AA:75:G:C4	1:AA:76:G:C8	3.09	0.40
1:AA:238:A:H2'	1:AA:239:U:H5'	2.04	0.40
1:AA:304:U:O2'	1:AA:305:G:H5'	2.21	0.40
1:AA:678:U:H4'	1:AA:778:G:OP1	2.21	0.40
1:AA:783:C:O2'	1:AA:784:A:H5'	2.21	0.40
1:AA:937:A:C2	1:AA:1379:G:O6	2.74	0.40
1:AA:957:U:H4'	19:AS:78:THR:OG1	2.20	0.40
1:AA:1037:C:N4	1:AA:1038:C:N4	2.70	0.40
1:AA:1060:U:C5	3:AC:1:GLY:HA3	2.57	0.40
1:AA:1148:U:H5''	9:AI:8:THR:HG21	2.04	0.40
1:AA:1216:A:OP1	14:AN:4:SER:HB2	2.22	0.40
1:AA:1229:A:O2'	1:AA:1230:C:C5'	2.69	0.40
1:AA:1282:C:O2'	1:AA:1283:U:C5'	2.69	0.40
1:AA:1337:G:H8	1:AA:1337:G:H2'	1.77	0.40
1:AA:1370:G:H3'	9:AI:110:VAL:HG11	2.02	0.40
1:AA:1380:U:H4'	1:AA:1381:U:OP1	2.21	0.40
2:AB:86:CYS:HB2	2:AB:88:GLN:CD	2.46	0.40
3:AC:53:ARG:O	3:AC:68:HIS:HB2	2.22	0.40
4:AD:66:VAL:HG13	4:AD:70:GLN:HE21	1.85	0.40
6:AF:39:LEU:C	6:AF:40:GLU:CG	2.94	0.40
7:AG:74:VAL:HG21	7:AG:85:GLN:HE21	1.82	0.40
8:AH:114:ALA:O	8:AH:117:GLN:N	2.55	0.40
9:AI:55:ASP:O	9:AI:59:LYS:HE3	2.21	0.40
10:AJ:74:VAL:O	10:AJ:75:ASP:CB	2.69	0.40
11:AK:73:VAL:C	11:AK:75:GLU:H	2.28	0.40
11:AK:110:THR:HA	21:AU:4:LYS:HA	2.04	0.40
12:AL:106:VAL:CG2	12:AL:116:TYR:HB3	2.52	0.40
13:AM:1:ALA:CA	13:AM:8:ILE:HG23	2.51	0.40
13:AM:81:ASP:OD2	27:BF:111:ARG:HD2	2.21	0.40
13:AM:84:CYS:SG	13:AM:85:TYR:N	2.94	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AO:63:ARG:HD3	15:AO:87:ARG:CZ	2.46	0.40
17:AQ:22:VAL:O	17:AQ:42:LYS:HA	2.21	0.40
18:AR:62:ARG:HB3	18:AR:69:TYR:CE2	2.56	0.40
20:AT:71:ALA:O	20:AT:72:ALA:C	2.63	0.40
22:BA:141:G:H3'	22:BA:142:A:C5'	2.51	0.40
22:BA:214:G:H1'	22:BA:217:A:H5'	2.02	0.40
22:BA:266:G:C2'	22:BA:267:C:O5'	2.70	0.40
22:BA:608:A:N6	22:BA:609:A:C6	2.90	0.40
22:BA:846:U:C2'	22:BA:847:U:OP2	2.68	0.40
22:BA:898:C:C2'	22:BA:899:A:H5'	2.52	0.40
22:BA:971:G:C2'	22:BA:972:A:H5'	2.51	0.40
22:BA:1110:G:O2'	22:BA:1111:A:P	2.80	0.40
22:BA:1154:G:OP1	38:BQ:57:ARG:HD3	2.21	0.40
22:BA:1177:G:C5	22:BA:1178:C:C5	3.09	0.40
22:BA:1282:U:C2'	22:BA:1283:G:H5'	2.52	0.40
22:BA:1315:C:H2'	22:BA:1316:U:H6	1.87	0.40
22:BA:1380:G:N7	62:BA:3744:HOH:O	2.37	0.40
22:BA:1405:U:H2'	22:BA:1406:U:C6	2.57	0.40
22:BA:1439:A:C2	22:BA:1553:A:C4	3.10	0.40
22:BA:1542:U:H2'	22:BA:1543:G:C5'	2.52	0.40
22:BA:1680:U:H2'	22:BA:1681:G:O4'	2.21	0.40
22:BA:1728:C:O2'	22:BA:1729:U:C5	2.74	0.40
22:BA:1733:G:O2'	22:BA:1734:G:P	2.80	0.40
22:BA:2560:A:C6	22:BA:2561:U:C4	3.09	0.40
22:BA:2772:C:H2'	22:BA:2773:C:C6	2.56	0.40
22:BA:2856:A:O2'	22:BA:2857:G:H5'	2.21	0.40
23:BB:24:G:N1	23:BB:56:G:N2	2.69	0.40
23:BB:97:C:H2'	23:BB:98:G:H5'	2.02	0.40
23:BB:116:G:H4'	36:BO:54:VAL:O	2.21	0.40
24:BC:89:ASN:HD22	24:BC:89:ASN:HA	1.58	0.40
26:BE:200:LEU:O	26:BE:201:ALA:HB3	2.21	0.40
29:BH:96:THR:O	29:BH:96:THR:CG2	2.68	0.40
30:BI:5:GLN:O	30:BI:6:ALA:HB2	2.21	0.40
34:BM:63:ILE:HD11	34:BM:105:MET:HE2	2.03	0.40
35:BN:47:VAL:C	35:BN:50:PRO:HD2	2.46	0.40
42:BU:2:ALA:O	42:BU:5:ARG:NH2	2.54	0.40
42:BU:73:ASN:ND2	42:BU:76:THR:H	2.08	0.40
44:BW:23:LYS:HD2	44:BW:24:ARG:CA	2.51	0.40
45:BX:31:ASN:O	45:BX:51:SER:HA	2.22	0.40
48:B0:27:LEU:H	48:B0:27:LEU:HD23	1.86	0.40
53:CA:9:G:N3	53:CA:10:A:C8	2.89	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:29:U:H4'	53:CA:295:C:O3'	2.20	0.40
53:CA:92:U:O2'	53:CA:93:U:O5'	2.39	0.40
53:CA:123:U:H2'	53:CA:124:C:H6	1.86	0.40
53:CA:177:G:C3'	53:CA:178:C:H5'	2.51	0.40
53:CA:197:A:N6	53:CA:221:C:C4'	2.74	0.40
53:CA:277:C:C2'	53:CA:278:G:H8	2.30	0.40
53:CA:458:U:H6	53:CA:458:U:OP2	2.03	0.40
53:CA:642:A:O2'	53:CA:643:C:P	2.80	0.40
53:CA:770:C:H1'	53:CA:899:C:H42	1.86	0.40
53:CA:1222:G:H5'	19:CS:77:ARG:HH21	1.86	0.40
53:CA:1401:G:H2'	53:CA:1402:C:H6	1.87	0.40
2:CB:14:HIS:CD2	2:CB:16:GLY:HA3	2.56	0.40
2:CB:104:LYS:HD2	2:CB:104:LYS:N	2.37	0.40
2:CB:221:ARG:O	2:CB:224:ARG:HG2	2.21	0.40
4:CD:125:ASN:HB2	4:CD:141:VAL:H	1.86	0.40
5:CE:111:ARG:O	5:CE:112:ALA:C	2.64	0.40
54:CG:125:ASP:HA	54:CG:128:GLU:HG2	2.02	0.40
8:CH:38:VAL:O	8:CH:38:VAL:HG12	2.22	0.40
9:CI:45:MET:HE3	9:CI:48:ARG:HG3	2.03	0.40
55:CM:100:ARG:NH1	55:CM:102:LYS:HE3	2.37	0.40
14:CN:30:ILE:C	14:CN:40:ARG:HA	2.46	0.40
14:CN:55:SER:HA	14:CN:56:PRO:HD2	1.87	0.40
17:CQ:30:HIS:HA	17:CQ:31:PRO:HD3	1.86	0.40
18:CR:22:TYR:HE1	18:CR:64:LEU:CD1	2.35	0.40
18:CR:22:TYR:CE1	18:CR:64:LEU:HD12	2.56	0.40
18:CR:43:ILE:HD13	18:CR:43:ILE:HA	1.90	0.40
22:DA:171:U:H2'	22:DA:172:A:C8	2.56	0.40
22:DA:188:G:H2'	22:DA:189:G:C5'	2.50	0.40
22:DA:278:A:N1	22:DA:362:A:C8	2.90	0.40
22:DA:373:U:HO2'	22:DA:374:A:H8	1.60	0.40
22:DA:465:G:C4'	50:D2:16:HIS:CD2	3.04	0.40
22:DA:492:A:H2'	22:DA:493:G:H8	1.86	0.40
22:DA:515:A:H2'	22:DA:516:C:H5'	2.04	0.40
22:DA:661:A:O2'	33:DL:13:LYS:HA	2.21	0.40
22:DA:674:G:C1'	26:DE:69:ARG:HG2	2.51	0.40
22:DA:844:A:H2'	22:DA:845:A:O4'	2.21	0.40
22:DA:940:G:N3	22:DA:1191:G:H4'	2.37	0.40
22:DA:1038:G:C2	22:DA:1118:C:N3	2.90	0.40
22:DA:1264:A:P	48:D0:15:ARG:HH12	2.44	0.40
22:DA:1519:G:C5'	22:DA:1520:U:OP2	2.62	0.40
22:DA:1666:G:C3'	32:DK:6:THR:HG23	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:1787:A:O5'	22:DA:1787:A:C8	2.75	0.40
22:DA:1797:G:H2'	22:DA:1798:U:C5'	2.51	0.40
22:DA:1837:C:H2'	22:DA:1899:A:N6	2.36	0.40
22:DA:1967:C:O2'	22:DA:1968:G:H5'	2.22	0.40
22:DA:2075:U:C4	22:DA:2238:G:C5	3.10	0.40
22:DA:2338:C:H6	22:DA:2338:C:H2'	1.60	0.40
22:DA:2376:A:H2	36:DO:92:PHE:HD2	1.70	0.40
22:DA:2595:G:N1	22:DA:2599:G:C6	2.89	0.40
22:DA:2808:G:N2	22:DA:2891:U:C6	2.89	0.40
22:DA:2899:A:N1	22:DA:2900:A:C6	2.89	0.40
57:DB:69:G:C3'	57:DB:70:C:H6	2.34	0.40
24:DC:75:ALA:HA	24:DC:95:TYR:HA	2.02	0.40
24:DC:77:VAL:HG21	24:DC:111:ALA:HA	2.03	0.40
24:DC:142:ASN:O	24:DC:142:ASN:CG	2.64	0.40
26:DE:182:ALA:C	26:DE:183:PHE:CD1	2.99	0.40
58:DF:42:ALA:C	58:DF:43:ILE:HG22	2.46	0.40
58:DF:93:GLU:O	58:DF:95:MET:N	2.46	0.40
28:DG:19:ASN:N	28:DG:19:ASN:ND2	2.69	0.40
29:DH:9:VAL:HG12	29:DH:10:ALA:N	2.34	0.40
29:DH:43:ASN:O	29:DH:47:PHE:HD2	2.04	0.40
30:DI:87:SER:HB3	30:DI:88:GLY:H	1.73	0.40
31:DJ:30:THR:CG2	31:DJ:31:GLU:H	2.35	0.40
31:DJ:111:LYS:CB	31:DJ:115:GLY:N	2.80	0.40
32:DK:107:LEU:C	32:DK:107:LEU:HD23	2.46	0.40
37:DP:31:VAL:O	37:DP:32:VAL:CG1	2.70	0.40
37:DP:99:LEU:HD23	37:DP:99:LEU:HA	1.95	0.40
42:DU:35:VAL:CG1	42:DU:36:GLU:N	2.71	0.40
42:DU:47:PRO:CB	42:DU:54:PRO:CG	2.86	0.40
45:DX:12:VAL:O	45:DX:12:VAL:HG23	2.21	0.40
48:D0:25:THR:HG22	48:D0:25:THR:O	2.21	0.40
1:AA:132:C:C4	1:AA:133:U:C5	3.09	0.40
1:AA:224:U:C2'	1:AA:225:C:H5'	2.52	0.40
1:AA:434:U:H2'	1:AA:435:A:O4'	2.21	0.40
1:AA:508:U:O2'	1:AA:509:A:H8	2.02	0.40
1:AA:591:U:H2'	1:AA:592:G:H8	1.86	0.40
1:AA:626:G:H2'	1:AA:627:G:O4'	2.22	0.40
1:AA:872:A:C2	1:AA:874:G:C6	3.10	0.40
1:AA:1114:C:C4	1:AA:1115:U:C5	3.10	0.40
1:AA:1141:C:C2	1:AA:1142:G:C8	3.10	0.40
1:AA:1272:G:C5	1:AA:1273:C:C4	3.10	0.40
1:AA:1391:U:H2'	1:AA:1392:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AB:69:VAL:HG23	2:AB:160:LEU:HD11	2.04	0.40
4:AD:65:GLY:HA3	4:AD:114:ARG:HH22	1.87	0.40
4:AD:80:ARG:HH21	4:AD:81:LEU:HD23	1.84	0.40
7:AG:6:ILE:HB	7:AG:7:GLY:H	1.67	0.40
8:AH:10:LEU:HD12	8:AH:76:ARG:HB2	2.03	0.40
8:AH:88:LYS:O	8:AH:91:LEU:HB2	2.22	0.40
8:AH:117:GLN:C	8:AH:119:GLY:H	2.30	0.40
9:AI:128:LYS:HD2	9:AI:129:ARG:N	2.34	0.40
15:AO:55:LEU:HD21	22:BA:715:A:C2	2.57	0.40
21:AU:13:VAL:HG22	21:AU:14:ALA:H	1.86	0.40
22:BA:235:U:C5	22:BA:236:C:C5	3.10	0.40
22:BA:316:C:C2'	22:BA:317:G:O5'	2.70	0.40
22:BA:478:A:N1	22:BA:500:G:H4'	2.36	0.40
22:BA:960:A:H4'	22:BA:2457:U:H4'	2.04	0.40
22:BA:1234:U:H2'	22:BA:1235:G:O4'	2.21	0.40
22:BA:1338:G:O2'	22:BA:1393:A:N1	2.48	0.40
22:BA:1384:A:H1'	22:BA:1405:U:O4'	2.22	0.40
22:BA:2094:A:P	29:BH:22:LYS:HD2	2.62	0.40
22:BA:2195:U:O2'	22:BA:2196:C:H5'	2.22	0.40
22:BA:2425:A:H5'	22:BA:2427:C:O4'	2.21	0.40
22:BA:2829:A:H2'	22:BA:2830:C:O4'	2.21	0.40
22:BA:2836:U:H2'	22:BA:2837:A:H8	1.86	0.40
22:BA:2856:A:N6	22:BA:2857:G:C6	2.89	0.40
24:BC:124:LYS:CG	24:BC:125:PRO:HD2	2.51	0.40
24:BC:245:THR:O	24:BC:248:GLY:N	2.55	0.40
25:BD:126:ASN:O	25:BD:127:PHE:C	2.63	0.40
27:BF:74:ALA:O	27:BF:75:GLY:C	2.63	0.40
31:BJ:73:VAL:HB	31:BJ:75:TYR:CE2	2.57	0.40
32:BK:1:MET:C	32:BK:2:ILE:HD13	2.46	0.40
32:BK:22:ILE:O	32:BK:23:LYS:HB2	2.21	0.40
36:BO:8:ILE:O	36:BO:11:ALA:N	2.42	0.40
37:BP:9:GLN:C	37:BP:11:GLN:N	2.73	0.40
37:BP:58:PHE:HD2	37:BP:75:THR:HG22	1.83	0.40
38:BQ:65:ASN:C	38:BQ:65:ASN:HD22	2.29	0.40
41:BT:29:THR:HB	41:BT:86:THR:HG23	2.04	0.40
41:BT:87:LEU:O	41:BT:88:LYS:C	2.63	0.40
43:BV:43:ASP:OD1	43:BV:43:ASP:C	2.64	0.40
44:BW:22:VAL:O	44:BW:23:LYS:O	2.39	0.40
46:BY:19:LEU:HD12	46:BY:19:LEU:HA	1.91	0.40
47:BZ:7:THR:HG22	47:BZ:32:GLY:HA2	2.04	0.40
47:BZ:40:THR:OG1	47:BZ:41:PRO:HD2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:CA:118:U:O4	53:CA:289:G:H4'	2.21	0.40
53:CA:170:U:HO2'	53:CA:171:A:H5'	1.80	0.40
53:CA:198:G:O2'	53:CA:199:A:P	2.80	0.40
53:CA:289:G:C2	53:CA:290:C:C4	3.09	0.40
53:CA:315:A:H5''	53:CA:317:U:OP2	2.22	0.40
53:CA:321:A:O4'	53:CA:1435:G:O2'	2.37	0.40
53:CA:334:C:C6	53:CA:334:C:C3'	3.05	0.40
53:CA:374:A:N3	53:CA:375:U:C6	2.90	0.40
53:CA:513:C:O2'	53:CA:514:C:C6	2.51	0.40
53:CA:680:C:C6	53:CA:680:C:C3'	3.04	0.40
53:CA:729:A:C4	53:CA:730:G:C8	3.09	0.40
53:CA:754:C:H3'	53:CA:755:G:C5'	2.51	0.40
53:CA:826:C:O2	53:CA:826:C:C2'	2.70	0.40
53:CA:834:U:H2'	53:CA:835:U:C6	2.56	0.40
53:CA:935:A:H61	54:CG:2:ARG:NE	2.18	0.40
53:CA:1053:G:N7	53:CA:1199:U:H3'	2.36	0.40
53:CA:1359:C:C2'	53:CA:1361:G:OP2	2.69	0.40
53:CA:1361:G:C2'	53:CA:1362:A:H5'	2.45	0.40
53:CA:1480:A:N7	53:CA:1481:U:C5	2.90	0.40
2:CB:72:LYS:O	2:CB:74:ALA:N	2.55	0.40
2:CB:139:GLU:O	2:CB:140:LEU:C	2.65	0.40
3:CC:6:PRO:HG2	3:CC:183:TYR:CD2	2.57	0.40
3:CC:52:SER:HB2	3:CC:68:HIS:O	2.20	0.40
4:CD:26:ALA:C	4:CD:31:CYS:SG	3.05	0.40
4:CD:116:LEU:HD21	4:CD:153:ARG:CD	2.52	0.40
4:CD:195:ASN:C	4:CD:197:HIS:N	2.78	0.40
8:CH:46:GLU:OE2	8:CH:46:GLU:HA	2.21	0.40
8:CH:68:LYS:HA	8:CH:68:LYS:CE	2.51	0.40
9:CI:18:VAL:HG21	9:CI:81:GLY:HA3	2.03	0.40
10:CJ:42:LEU:HD12	10:CJ:42:LEU:N	2.36	0.40
12:CL:7:VAL:HG12	12:CL:7:VAL:O	2.21	0.40
12:CL:70:GLY:C	12:CL:98:ARG:NH2	2.76	0.40
14:CN:27:LYS:HB2	14:CN:45:LEU:HD23	2.02	0.40
56:CP:48:GLU:OE2	56:CP:51:ARG:NE	2.53	0.40
17:CQ:47:ASP:O	17:CQ:50:ASN:N	2.55	0.40
17:CQ:58:VAL:HG12	17:CQ:74:LEU:HD11	2.03	0.40
20:CT:20:ASN:O	20:CT:24:ARG:HB2	2.21	0.40
20:CT:67:HIS:HB3	20:CT:68:LYS:HD2	2.02	0.40
22:DA:45:G:C4'	22:DA:46:G:H5'	2.52	0.40
22:DA:123:G:O3'	22:DA:1376:C:H4'	2.21	0.40
22:DA:222:A:H61	22:DA:232:G:HI'	1.80	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:DA:321:U:C2	26:DE:159:LEU:HD21	2.57	0.40
22:DA:389:G:N7	22:DA:2413:G:H4'	2.36	0.40
22:DA:603:A:H4'	22:DA:604:G:C5'	2.50	0.40
22:DA:626:A:H2'	33:DL:78:ARG:NH2	2.37	0.40
22:DA:675:A:N6	22:DA:676:A:H61	2.20	0.40
22:DA:772:C:N3	22:DA:773:U:C5	2.90	0.40
22:DA:784:G:C2	24:DC:227:VAL:CG2	3.04	0.40
22:DA:979:A:H2'	22:DA:982:C:H41	1.87	0.40
22:DA:992:C:O2'	22:DA:993:G:O4'	2.36	0.40
22:DA:1120:G:C2'	22:DA:1121:C:H5'	2.52	0.40
22:DA:1275:A:O3'	22:DA:1276:A:C4'	2.70	0.40
22:DA:1277:G:O2'	35:DN:24:MET:HB2	2.22	0.40
22:DA:1286:A:C6	22:DA:1289:C:C2	3.09	0.40
22:DA:1301:A:C5	22:DA:1303:G:C5	3.09	0.40
22:DA:1412:U:H2'	22:DA:1413:A:O4'	2.21	0.40
22:DA:1479:G:N2	22:DA:1513:U:H1'	2.36	0.40
22:DA:2066:C:H2'	22:DA:2067:G:H8	1.87	0.40
22:DA:2191:A:C5'	22:DA:2192:U:OP2	2.69	0.40
22:DA:2323:G:N2	22:DA:2335:A:H2	2.20	0.40
22:DA:2339:C:O2'	22:DA:2340:A:P	2.80	0.40
22:DA:2403:C:H2'	22:DA:2404:U:H6	1.86	0.40
22:DA:2492:U:H2'	22:DA:2493:U:C5	2.56	0.40
22:DA:2518:A:H4'	22:DA:2519:U:OP2	2.21	0.40
22:DA:2559:C:C3'	22:DA:2559:C:C6	3.05	0.40
57:DB:55:U:C1'	58:DF:25:MET:HE1	2.52	0.40
57:DB:77:U:O2'	57:DB:78:A:H5'	2.21	0.40
24:DC:60:ALA:O	24:DC:62:ARG:HD2	2.22	0.40
25:DD:43:ASP:HB3	25:DD:44:GLY:H	1.68	0.40
26:DE:34:ALA:HB1	26:DE:94:GLN:CB	2.47	0.40
26:DE:106:LYS:HG3	26:DE:200:LEU:HD12	2.03	0.40
28:DG:18:ILE:CD1	28:DG:42:VAL:CG1	2.94	0.40
29:DH:26:ALA:O	29:DH:27:ARG:CB	2.69	0.40
33:DL:29:LYS:O	33:DL:30:THR:OG1	2.35	0.40
33:DL:57:LEU:HA	33:DL:60:ARG:CD	2.50	0.40
35:DN:35:LYS:NZ	35:DN:112:TYR:CE1	2.77	0.40
39:DR:41:ILE:HG22	39:DR:42:ALA:H	1.85	0.40
45:DX:2:ARG:CB	45:DX:11:PRO:HD3	2.51	0.40
49:D1:49:LYS:O	49:D1:50:GLU:HB3	2.21	0.40
51:D3:61:LEU:HB2	51:D3:64:ALA:HB3	2.02	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	AB	216/218 (99%)	121 (56%)	65 (30%)	30 (14%)	0	1
2	CB	216/218 (99%)	145 (67%)	54 (25%)	17 (8%)	1	5
3	AC	204/206 (99%)	154 (76%)	33 (16%)	17 (8%)	0	4
3	CC	204/206 (99%)	147 (72%)	40 (20%)	17 (8%)	0	4
4	AD	203/205 (99%)	134 (66%)	42 (21%)	27 (13%)	0	1
4	CD	203/205 (99%)	139 (68%)	38 (19%)	26 (13%)	0	1
5	AE	148/150 (99%)	105 (71%)	26 (18%)	17 (12%)	0	2
5	CE	148/150 (99%)	110 (74%)	23 (16%)	15 (10%)	0	3
6	AF	98/100 (98%)	71 (72%)	19 (19%)	8 (8%)	0	5
6	CF	98/100 (98%)	62 (63%)	27 (28%)	9 (9%)	0	3
7	AG	149/151 (99%)	107 (72%)	34 (23%)	8 (5%)	1	10
8	AH	127/129 (98%)	92 (72%)	27 (21%)	8 (6%)	1	7
8	CH	127/129 (98%)	87 (68%)	30 (24%)	10 (8%)	1	5
9	AI	125/127 (98%)	83 (66%)	31 (25%)	11 (9%)	0	4
9	CI	125/127 (98%)	87 (70%)	29 (23%)	9 (7%)	1	6
10	AJ	96/98 (98%)	64 (67%)	19 (20%)	13 (14%)	0	1
10	CJ	96/98 (98%)	58 (60%)	24 (25%)	14 (15%)	0	1
11	AK	115/117 (98%)	85 (74%)	18 (16%)	12 (10%)	0	2
11	CK	115/117 (98%)	89 (77%)	17 (15%)	9 (8%)	1	5
12	AL	121/123 (98%)	84 (69%)	21 (17%)	16 (13%)	0	1
12	CL	121/123 (98%)	84 (69%)	25 (21%)	12 (10%)	0	3
13	AM	112/114 (98%)	87 (78%)	17 (15%)	8 (7%)	1	6
14	AN	92/100 (92%)	54 (59%)	23 (25%)	15 (16%)	0	1
14	CN	91/100 (91%)	58 (64%)	27 (30%)	6 (7%)	1	7
15	AO	86/88 (98%)	58 (67%)	22 (26%)	6 (7%)	1	6

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	CO	86/88 (98%)	68 (79%)	15 (17%)	3 (4%)	3	17
16	AP	80/82 (98%)	58 (72%)	13 (16%)	9 (11%)	0	2
17	AQ	78/80 (98%)	46 (59%)	20 (26%)	12 (15%)	0	1
17	CQ	78/80 (98%)	60 (77%)	8 (10%)	10 (13%)	0	1
18	AR	53/55 (96%)	39 (74%)	13 (24%)	1 (2%)	6	29
18	CR	53/55 (96%)	40 (76%)	11 (21%)	2 (4%)	2	16
19	AS	77/79 (98%)	56 (73%)	14 (18%)	7 (9%)	0	3
19	CS	77/79 (98%)	46 (60%)	24 (31%)	7 (9%)	0	3
20	AT	83/85 (98%)	54 (65%)	20 (24%)	9 (11%)	0	2
20	CT	83/85 (98%)	55 (66%)	21 (25%)	7 (8%)	0	4
21	AU	49/51 (96%)	25 (51%)	17 (35%)	7 (14%)	0	1
21	CU	49/51 (96%)	24 (49%)	11 (22%)	14 (29%)	0	0
24	BC	269/271 (99%)	197 (73%)	53 (20%)	19 (7%)	1	6
24	DC	269/271 (99%)	177 (66%)	55 (20%)	37 (14%)	0	1
25	BD	207/209 (99%)	140 (68%)	38 (18%)	29 (14%)	0	1
25	DD	207/209 (99%)	134 (65%)	39 (19%)	34 (16%)	0	1
26	BE	199/201 (99%)	143 (72%)	35 (18%)	21 (11%)	0	2
26	DE	199/201 (99%)	122 (61%)	51 (26%)	26 (13%)	0	1
27	BF	175/177 (99%)	127 (73%)	33 (19%)	15 (9%)	0	4
28	BG	174/176 (99%)	115 (66%)	32 (18%)	27 (16%)	0	1
28	DG	174/176 (99%)	100 (58%)	43 (25%)	31 (18%)	0	0
29	BH	147/149 (99%)	67 (46%)	46 (31%)	34 (23%)	0	0
29	DH	147/149 (99%)	71 (48%)	58 (40%)	18 (12%)	0	1
30	BI	139/141 (99%)	84 (60%)	41 (30%)	14 (10%)	0	3
30	DI	139/141 (99%)	78 (56%)	43 (31%)	18 (13%)	0	1
31	BJ	140/142 (99%)	101 (72%)	23 (16%)	16 (11%)	0	2
31	DJ	140/142 (99%)	90 (64%)	30 (21%)	20 (14%)	0	1
32	BK	120/122 (98%)	83 (69%)	15 (12%)	22 (18%)	0	0
32	DK	120/122 (98%)	83 (69%)	13 (11%)	24 (20%)	0	0
33	BL	141/143 (99%)	104 (74%)	28 (20%)	9 (6%)	1	7
33	DL	141/143 (99%)	81 (57%)	42 (30%)	18 (13%)	0	1

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
34	BM	134/136 (98%)	91 (68%)	25 (19%)	18 (13%)	0	1
34	DM	134/136 (98%)	93 (69%)	24 (18%)	17 (13%)	0	1
35	BN	118/120 (98%)	87 (74%)	21 (18%)	10 (8%)	0	4
35	DN	118/120 (98%)	72 (61%)	30 (25%)	16 (14%)	0	1
36	BO	114/116 (98%)	87 (76%)	20 (18%)	7 (6%)	1	8
36	DO	114/116 (98%)	76 (67%)	26 (23%)	12 (10%)	0	2
37	BP	112/114 (98%)	75 (67%)	21 (19%)	16 (14%)	0	1
37	DP	112/114 (98%)	65 (58%)	27 (24%)	20 (18%)	0	0
38	BQ	115/117 (98%)	91 (79%)	17 (15%)	7 (6%)	1	8
38	DQ	115/117 (98%)	78 (68%)	24 (21%)	13 (11%)	0	2
39	BR	101/103 (98%)	76 (75%)	16 (16%)	9 (9%)	0	4
39	DR	101/103 (98%)	67 (66%)	25 (25%)	9 (9%)	0	4
40	BS	108/110 (98%)	77 (71%)	25 (23%)	6 (6%)	1	9
40	DS	108/110 (98%)	75 (69%)	21 (19%)	12 (11%)	0	2
41	BT	91/93 (98%)	55 (60%)	19 (21%)	17 (19%)	0	0
41	DT	91/93 (98%)	47 (52%)	28 (31%)	16 (18%)	0	0
42	BU	100/102 (98%)	63 (63%)	22 (22%)	15 (15%)	0	1
42	DU	100/102 (98%)	50 (50%)	23 (23%)	27 (27%)	0	0
43	BV	92/94 (98%)	80 (87%)	10 (11%)	2 (2%)	5	25
43	DV	92/94 (98%)	61 (66%)	24 (26%)	7 (8%)	1	5
44	BW	77/79 (98%)	27 (35%)	25 (32%)	25 (32%)	0	0
44	DW	77/79 (98%)	34 (44%)	22 (29%)	21 (27%)	0	0
45	BX	75/77 (97%)	54 (72%)	15 (20%)	6 (8%)	1	5
45	DX	75/77 (97%)	46 (61%)	24 (32%)	5 (7%)	1	7
46	BY	61/63 (97%)	37 (61%)	16 (26%)	8 (13%)	0	1
46	DY	61/63 (97%)	40 (66%)	16 (26%)	5 (8%)	0	5
47	BZ	56/58 (97%)	44 (79%)	10 (18%)	2 (4%)	2	17
47	DZ	56/58 (97%)	35 (62%)	15 (27%)	6 (11%)	0	2
48	B0	54/56 (96%)	42 (78%)	8 (15%)	4 (7%)	1	6
48	D0	54/56 (96%)	37 (68%)	12 (22%)	5 (9%)	0	3
49	B1	48/50 (96%)	37 (77%)	6 (12%)	5 (10%)	0	2

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
49	D1	48/50 (96%)	33 (69%)	10 (21%)	5 (10%)	0	2
50	B2	44/46 (96%)	37 (84%)	6 (14%)	1 (2%)	5	25
50	D2	44/46 (96%)	32 (73%)	6 (14%)	6 (14%)	0	1
51	B3	62/64 (97%)	50 (81%)	8 (13%)	4 (6%)	1	7
51	D3	62/64 (97%)	40 (64%)	17 (27%)	5 (8%)	1	5
52	B4	36/38 (95%)	28 (78%)	4 (11%)	4 (11%)	0	2
52	D4	36/38 (95%)	24 (67%)	6 (17%)	6 (17%)	0	1
54	CG	148/150 (99%)	103 (70%)	34 (23%)	11 (7%)	1	6
55	CM	111/113 (98%)	63 (57%)	36 (32%)	12 (11%)	0	2
56	CP	78/80 (98%)	50 (64%)	19 (24%)	9 (12%)	0	2
58	DF	176/178 (99%)	98 (56%)	46 (26%)	32 (18%)	0	0
All	All	11238/11447 (98%)	7490 (67%)	2445 (22%)	1303 (12%)	0	1

All (1303) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	AB	20	ARG
2	AB	21	TYR
2	AB	37	VAL
2	AB	40	ILE
2	AB	75	ALA
2	AB	109	SER
2	AB	119	GLN
2	AB	133	ALA
2	AB	200	PRO
3	AC	14	VAL
3	AC	16	PRO
3	AC	60	ALA
3	AC	100	ILE
3	AC	126	ARG
3	AC	165	GLU
3	AC	205	GLU
4	AD	26	ALA
4	AD	28	ASP
4	AD	31	CYS
4	AD	34	GLU
4	AD	148	ALA
4	AD	167	PRO

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Mol	Chain	Res	Type
4	AD	173	ASP
4	AD	191	SER
4	AD	192	ALA
5	AE	44	ARG
5	AE	97	PRO
5	AE	156	ARG
5	AE	157	GLY
7	AG	93	VAL
7	AG	129	ASN
8	AH	49	LYS
9	AI	8	THR
9	AI	40	ARG
9	AI	43	ALA
9	AI	55	ASP
9	AI	128	LYS
10	AJ	57	VAL
10	AJ	61	ALA
10	AJ	92	LEU
11	AK	51	PHE
11	AK	125	LYS
11	AK	126	ARG
12	AL	23	LEU
12	AL	24	GLU
12	AL	33	CYS
12	AL	43	LYS
12	AL	73	LEU
12	AL	75	GLU
12	AL	88	ASP
12	AL	97	VAL
13	AM	46	GLU
13	AM	113	LYS
14	AN	22	LYS
14	AN	27	LYS
14	AN	33	VAL
14	AN	51	PRO
14	AN	52	ARG
14	AN	61	ASN
15	AO	17	ASP
15	AO	24	THR
16	AP	11	ALA
16	AP	80	LYS
17	AQ	12	VAL

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Mol	Chain	Res	Type
17	AQ	16	MET
20	AT	3	ILE
20	AT	4	LYS
20	AT	5	SER
20	AT	67	HIS
21	AU	11	PHE
21	AU	12	ASP
21	AU	23	GLU
24	BC	104	LEU
24	BC	105	ALA
24	BC	140	VAL
24	BC	239	PHE
25	BD	43	ASP
25	BD	73	VAL
25	BD	92	VAL
25	BD	99	GLU
25	BD	100	LEU
25	BD	104	VAL
25	BD	122	VAL
25	BD	145	SER
25	BD	151	THR
25	BD	169	ARG
25	BD	183	GLU
25	BD	184	ARG
25	BD	191	GLY
25	BD	192	ALA
26	BE	4	VAL
26	BE	8	ALA
26	BE	46	GLN
26	BE	123	LYS
26	BE	153	LEU
26	BE	175	ILE
27	BF	127	TYR
27	BF	133	GLU
27	BF	134	GLN
27	BF	174	PHE
27	BF	175	PRO
28	BG	7	PRO
28	BG	8	VAL
28	BG	31	GLU
28	BG	33	THR
28	BG	45	ALA

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Mol	Chain	Res	Type
28	BG	53	PRO
28	BG	61	TRP
28	BG	84	LYS
28	BG	91	VAL
28	BG	94	ARG
28	BG	118	ALA
29	BH	3	VAL
29	BH	8	LYS
29	BH	9	VAL
29	BH	10	ALA
29	BH	14	SER
29	BH	28	ASN
29	BH	31	VAL
29	BH	32	PRO
29	BH	33	GLN
29	BH	54	LEU
29	BH	81	ALA
29	BH	83	LYS
29	BH	111	ALA
30	BI	65	SER
30	BI	92	PRO
31	BJ	21	THR
31	BJ	41	LYS
31	BJ	45	THR
32	BK	13	ASN
32	BK	16	ALA
32	BK	17	ARG
32	BK	35	VAL
32	BK	49	ARG
32	BK	71	ARG
32	BK	72	PRO
32	BK	93	GLN
32	BK	108	ARG
33	BL	15	ALA
33	BL	66	PHE
33	BL	88	GLY
34	BM	36	VAL
34	BM	54	THR
34	BM	55	ARG
34	BM	60	GLN
34	BM	69	PRO
34	BM	77	PRO

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Mol	Chain	Res	Type
34	BM	84	LYS
35	BN	117	ASP
36	BO	3	LYS
36	BO	112	GLU
37	BP	25	VAL
37	BP	33	GLU
37	BP	50	ARG
37	BP	93	LYS
38	BQ	86	SER
39	BR	55	ASP
40	BS	3	THR
40	BS	14	ALA
40	BS	19	LEU
40	BS	64	ALA
41	BT	27	SER
41	BT	29	THR
41	BT	38	ALA
41	BT	69	ARG
41	BT	86	THR
41	BT	88	LYS
42	BU	6	ARG
42	BU	18	LYS
42	BU	63	ALA
42	BU	88	ASP
42	BU	98	ASN
44	BW	9	THR
44	BW	14	ASP
44	BW	30	VAL
44	BW	50	VAL
45	BX	53	LYS
46	BY	22	LEU
46	BY	23	ARG
47	BZ	3	THR
48	B0	35	GLU
48	B0	54	ILE
50	B2	44	VAL
51	B3	6	VAL
52	B4	4	ARG
52	B4	16	ILE
2	CB	81	ASP
2	CB	84	LEU
2	CB	102	ASN

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Mol	Chain	Res	Type
2	CB	129	THR
2	CB	150	ILE
3	CC	24	ASN
3	CC	59	PRO
3	CC	63	ILE
3	CC	178	ARG
4	CD	24	VAL
4	CD	26	ALA
4	CD	29	THR
4	CD	35	GLN
4	CD	47	LEU
4	CD	80	ARG
4	CD	82	LYS
4	CD	187	ARG
4	CD	191	SER
4	CD	192	ALA
5	CE	31	SER
5	CE	69	ASN
5	CE	75	LEU
6	CF	68	GLN
6	CF	98	GLU
6	CF	99	ALA
54	CG	29	LEU
54	CG	30	MET
54	CG	31	VAL
54	CG	52	ARG
8	CH	58	LEU
9	CI	54	VAL
9	CI	71	ILE
10	CJ	87	LEU
11	CK	14	GLN
11	CK	88	PRO
11	CK	90	PRO
11	CK	126	ARG
11	CK	127	ARG
12	CL	16	ALA
12	CL	34	THR
12	CL	47	ALA
55	CM	4	ALA
14	CN	21	ALA
14	CN	53	ASP
14	CN	95	LEU

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Mol	Chain	Res	Type
56	CP	63	GLN
17	CQ	52	CYS
20	CT	3	ILE
20	CT	43	LYS
20	CT	65	LEU
20	CT	82	ILE
21	CU	4	LYS
21	CU	15	LEU
21	CU	23	GLU
21	CU	32	ARG
21	CU	35	GLU
21	CU	36	PHE
24	DC	9	SER
24	DC	28	PRO
24	DC	186	ASP
24	DC	232	GLY
24	DC	239	PHE
24	DC	269	ARG
25	DD	11	MET
25	DD	14	ILE
25	DD	74	GLU
25	DD	102	ALA
25	DD	118	PHE
25	DD	119	ALA
25	DD	136	ASN
25	DD	150	GLN
25	DD	162	ALA
25	DD	170	VAL
25	DD	194	PRO
26	DE	41	GLN
26	DE	62	GLN
26	DE	99	LYS
26	DE	116	ASP
26	DE	153	LEU
58	DF	10	GLU
58	DF	12	VAL
58	DF	32	LYS
58	DF	36	ASN
58	DF	42	ALA
58	DF	76	PHE
58	DF	112	ASP
58	DF	114	ARG

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Mol	Chain	Res	Type
58	DF	120	SER
58	DF	122	ASP
58	DF	137	PHE
28	DG	49	LEU
28	DG	59	ASP
28	DG	85	LYS
28	DG	86	LEU
28	DG	95	ALA
28	DG	149	ALA
28	DG	165	ASP
29	DH	3	VAL
29	DH	9	VAL
29	DH	10	ALA
29	DH	61	VAL
29	DH	76	GLU
29	DH	98	ASP
29	DH	102	ALA
30	DI	22	PRO
30	DI	23	VAL
30	DI	29	GLN
30	DI	52	LEU
30	DI	58	ILE
30	DI	69	VAL
31	DJ	45	THR
31	DJ	81	ILE
31	DJ	87	ALA
31	DJ	95	ARG
32	DK	16	ALA
32	DK	49	ARG
32	DK	71	ARG
32	DK	120	PRO
33	DL	4	ASN
33	DL	41	ARG
33	DL	82	LEU
33	DL	85	VAL
33	DL	89	VAL
33	DL	100	ILE
33	DL	101	ILE
33	DL	111	ILE
34	DM	2	LEU
34	DM	72	PRO
34	DM	73	ILE

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Mol	Chain	Res	Type
34	DM	77	PRO
34	DM	135	VAL
35	DN	8	ARG
35	DN	10	LEU
35	DN	104	ALA
36	DO	90	VAL
37	DP	25	VAL
37	DP	50	ARG
37	DP	83	ILE
37	DP	94	ALA
37	DP	112	ARG
40	DS	28	LYS
40	DS	33	LEU
40	DS	40	ASN
40	DS	72	THR
41	DT	14	PRO
41	DT	15	HIS
41	DT	20	ALA
41	DT	29	THR
41	DT	39	THR
41	DT	88	LYS
42	DU	8	ASP
42	DU	65	GLN
42	DU	82	VAL
42	DU	92	VAL
42	DU	96	LYS
42	DU	97	SER
43	DV	56	PHE
44	DW	9	THR
44	DW	34	SER
44	DW	35	ILE
44	DW	46	ALA
44	DW	71	LYS
45	DX	2	ARG
46	DY	22	LEU
47	DZ	4	ILE
47	DZ	13	ILE
48	D0	54	ILE
50	D2	24	THR
51	D3	29	ARG
51	D3	51	LYS
52	D4	20	ASP

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Mol	Chain	Res	Type
2	AB	17	HIS
2	AB	18	GLN
2	AB	33	ALA
2	AB	63	LYS
2	AB	72	LYS
2	AB	125	PHE
2	AB	140	LEU
2	AB	163	ILE
2	AB	189	ASN
2	AB	210	THR
2	AB	219	THR
3	AC	17	TRP
3	AC	148	ILE
3	AC	191	THR
4	AD	23	GLY
4	AD	29	THR
4	AD	35	GLN
4	AD	147	LYS
4	AD	152	SER
4	AD	159	GLU
4	AD	174	ALA
5	AE	98	ALA
5	AE	121	ASN
5	AE	133	ILE
5	AE	137	ARG
6	AF	54	LEU
6	AF	86	ARG
6	AF	91	ARG
7	AG	6	ILE
8	AH	48	PHE
8	AH	88	LYS
8	AH	95	MET
9	AI	71	ILE
9	AI	119	LYS
10	AJ	33	GLY
10	AJ	74	VAL
10	AJ	101	SER
11	AK	97	ARG
12	AL	22	ALA
12	AL	117	GLY
13	AM	4	ALA
13	AM	84	CYS

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Mol	Chain	Res	Type
14	AN	14	ALA
14	AN	81	ILE
14	AN	91	GLU
15	AO	72	LYS
15	AO	74	VAL
16	AP	10	GLY
17	AQ	11	VAL
17	AQ	14	ASP
17	AQ	49	ASN
17	AQ	50	ASN
17	AQ	52	CYS
17	AQ	70	LYS
17	AQ	75	VAL
18	AR	47	ARG
19	AS	27	LYS
21	AU	8	ASN
24	BC	35	LYS
24	BC	59	GLN
24	BC	68	ARG
25	BD	71	ALA
25	BD	107	VAL
25	BD	144	GLY
25	BD	173	GLN
25	BD	182	ALA
26	BE	5	LEU
26	BE	6	LYS
26	BE	79	ARG
26	BE	80	SER
26	BE	116	ASP
27	BF	147	ARG
28	BG	9	VAL
28	BG	44	HIS
28	BG	54	ARG
28	BG	60	GLY
28	BG	164	ALA
28	BG	168	VAL
28	BG	170	THR
29	BH	13	GLY
29	BH	34	GLY
29	BH	101	ASP
29	BH	107	GLY
29	BH	121	VAL

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Mol	Chain	Res	Type
29	BH	131	SER
30	BI	30	GLN
30	BI	105	LEU
31	BJ	2	LYS
31	BJ	14	ASP
31	BJ	44	TYR
31	BJ	81	ILE
31	BJ	111	LYS
31	BJ	124	VAL
32	BK	48	PRO
32	BK	50	GLY
32	BK	118	LEU
33	BL	29	LYS
33	BL	81	ASP
33	BL	111	ILE
33	BL	114	GLY
34	BM	2	LEU
34	BM	14	LYS
34	BM	56	ALA
34	BM	110	GLU
35	BN	59	SER
35	BN	101	GLY
35	BN	102	PHE
36	BO	22	GLY
36	BO	113	ALA
37	BP	2	ASN
37	BP	51	ASN
37	BP	92	ARG
37	BP	104	GLY
37	BP	105	LYS
38	BQ	4	LYS
38	BQ	87	VAL
38	BQ	91	ARG
38	BQ	97	ILE
39	BR	27	ILE
40	BS	96	ILE
41	BT	16	VAL
41	BT	19	LYS
41	BT	39	THR
41	BT	70	HIS
41	BT	83	ALA
42	BU	38	ILE

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Mol	Chain	Res	Type
42	BU	51	LEU
42	BU	83	GLY
42	BU	92	VAL
43	BV	69	GLU
44	BW	18	LYS
44	BW	27	GLY
44	BW	29	SER
44	BW	33	GLY
44	BW	34	SER
44	BW	36	ILE
44	BW	40	ARG
44	BW	48	ALA
44	BW	51	GLY
44	BW	52	CYS
45	BX	2	ARG
45	BX	17	ARG
46	BY	17	GLU
46	BY	24	GLU
48	B0	51	ARG
49	B1	4	ILE
49	B1	51	ALA
51	B3	27	ASN
51	B3	31	ILE
52	B4	8	LYS
52	B4	29	ALA
2	CB	26	MET
2	CB	163	ILE
3	CC	130	ARG
3	CC	140	ALA
3	CC	164	THR
4	CD	25	ARG
4	CD	40	HIS
4	CD	107	GLY
4	CD	188	SER
5	CE	68	ARG
5	CE	113	VAL
5	CE	133	ILE
6	CF	44	ARG
6	CF	82	ASP
6	CF	85	ILE
6	CF	92	THR
54	CG	10	LYS

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Mol	Chain	Res	Type
54	CG	113	LYS
8	CH	2	MET
8	CH	29	SER
8	CH	30	LYS
8	CH	119	GLY
9	CI	11	ARG
9	CI	44	ARG
9	CI	58	GLU
10	CJ	34	ALA
10	CJ	44	THR
10	CJ	46	LYS
10	CJ	57	VAL
10	CJ	93	ALA
11	CK	70	ALA
11	CK	91	GLY
12	CL	8	ARG
12	CL	43	LYS
12	CL	88	ASP
55	CM	11	HIS
55	CM	14	ALA
55	CM	45	SER
55	CM	49	GLU
55	CM	65	GLU
14	CN	99	SER
56	CP	31	ARG
56	CP	42	ILE
56	CP	53	ASP
56	CP	78	VAL
17	CQ	12	VAL
17	CQ	68	LYS
17	CQ	69	THR
17	CQ	78	VAL
18	CR	70	THR
19	CS	4	LEU
19	CS	46	LEU
21	CU	8	ASN
21	CU	9	GLU
21	CU	11	PHE
21	CU	34	ARG
21	CU	38	GLU
24	DC	3	VAL
24	DC	15	VAL

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Mol	Chain	Res	Type
24	DC	37	SER
24	DC	69	ASN
24	DC	94	LEU
24	DC	121	ALA
24	DC	140	VAL
24	DC	141	HIS
25	DD	31	ALA
25	DD	77	ARG
25	DD	93	GLY
25	DD	95	SER
25	DD	143	PRO
25	DD	164	GLN
25	DD	176	ASP
25	DD	197	THR
26	DE	24	ASN
26	DE	55	SER
26	DE	80	SER
26	DE	127	GLU
26	DE	148	ILE
26	DE	166	LYS
26	DE	187	VAL
58	DF	8	LYS
58	DF	41	GLU
58	DF	43	ILE
58	DF	67	THR
58	DF	113	PHE
58	DF	133	GLU
58	DF	138	PRO
58	DF	145	VAL
58	DF	148	VAL
28	DG	80	GLU
28	DG	83	THR
28	DG	93	TYR
28	DG	123	GLU
28	DG	125	PRO
28	DG	150	TYR
28	DG	164	ALA
29	DH	66	ASN
29	DH	72	ILE
29	DH	86	ASP
29	DH	143	ILE
29	DH	144	VAL

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Mol	Chain	Res	Type
30	DI	9	LYS
30	DI	19	PRO
30	DI	30	GLN
30	DI	62	ALA
30	DI	140	GLU
31	DJ	44	TYR
31	DJ	112	GLY
31	DJ	113	PRO
32	DK	2	ILE
32	DK	18	ARG
32	DK	35	VAL
32	DK	46	ALA
32	DK	72	PRO
32	DK	88	ASN
32	DK	104	THR
32	DK	110	GLU
33	DL	48	ARG
33	DL	66	PHE
33	DL	88	GLY
33	DL	99	ASN
34	DM	14	LYS
34	DM	35	ALA
34	DM	95	LEU
34	DM	111	GLU
35	DN	2	ARG
35	DN	13	ASN
35	DN	30	ARG
35	DN	63	ARG
35	DN	82	GLU
35	DN	91	ALA
35	DN	105	GLY
36	DO	27	VAL
36	DO	43	ASN
36	DO	72	ALA
37	DP	33	GLU
37	DP	51	ASN
37	DP	85	VAL
37	DP	108	ARG
38	DQ	88	GLU
39	DR	3	ALA
39	DR	40	MET
39	DR	98	ILE

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Mol	Chain	Res	Type
40	DS	3	THR
41	DT	33	LYS
41	DT	56	GLU
41	DT	68	LYS
42	DU	17	ASP
42	DU	34	ILE
42	DU	52	ASN
42	DU	87	GLU
42	DU	88	ASP
42	DU	95	PHE
43	DV	58	SER
44	DW	18	LYS
44	DW	33	GLY
44	DW	36	ILE
44	DW	53	GLY
44	DW	57	THR
44	DW	83	ALA
45	DX	41	SER
46	DY	9	LYS
46	DY	37	LEU
46	DY	46	VAL
48	D0	32	THR
48	D0	55	ALA
49	D1	4	ILE
49	D1	35	LEU
49	D1	36	LYS
50	D2	40	ALA
51	D3	22	LYS
52	D4	4	ARG
2	AB	22	TRP
2	AB	171	ALA
3	AC	88	LYS
3	AC	192	TYR
4	AD	33	ILE
4	AD	150	LYS
4	AD	196	GLU
5	AE	11	GLN
5	AE	23	THR
5	AE	149	PRO
5	AE	154	ALA
6	AF	63	ASN
7	AG	8	GLN

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Mol	Chain	Res	Type
8	AH	66	GLN
8	AH	82	LEU
9	AI	90	ASP
9	AI	120	ALA
10	AJ	30	LYS
10	AJ	58	ASN
11	AK	13	LYS
11	AK	88	PRO
11	AK	98	ALA
13	AM	26	LYS
14	AN	16	ALA
14	AN	63	CYS
15	AO	16	ARG
16	AP	12	LYS
17	AQ	15	LYS
19	AS	5	LYS
19	AS	63	ASP
20	AT	72	ALA
20	AT	74	HIS
24	BC	109	LEU
24	BC	157	ALA
24	BC	184	GLU
24	BC	196	ASN
24	BC	204	LEU
25	BD	91	THR
25	BD	118	PHE
25	BD	170	VAL
25	BD	175	LEU
26	BE	11	ALA
26	BE	142	ALA
27	BF	11	VAL
27	BF	111	ARG
27	BF	128	SER
28	BG	30	GLY
29	BH	15	LEU
29	BH	29	PHE
29	BH	106	ALA
29	BH	125	THR
30	BI	59	THR
31	BJ	39	LYS
31	BJ	73	VAL
32	BK	73	ASP

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Mol	Chain	Res	Type
32	BK	92	GLU
32	BK	119	ALA
34	BM	35	ALA
34	BM	43	ALA
35	BN	2	ARG
35	BN	118	ARG
37	BP	103	THR
37	BP	113	LEU
38	BQ	88	GLU
39	BR	51	VAL
42	BU	45	GLN
42	BU	85	ARG
42	BU	87	GLU
42	BU	96	LYS
44	BW	23	LYS
44	BW	42	THR
44	BW	74	LYS
45	BX	34	SER
46	BY	57	LEU
48	B0	34	GLY
49	B1	28	THR
2	CB	128	LEU
2	CB	177	ASN
2	CB	205	ALA
2	CB	208	ALA
3	CC	145	ALA
3	CC	173	PRO
3	CC	180	ASP
3	CC	190	THR
4	CD	4	LEU
4	CD	33	ILE
4	CD	39	GLN
5	CE	43	GLY
5	CE	100	GLU
5	CE	144	GLU
6	CF	94	HIS
54	CG	36	SER
54	CG	62	GLU
54	CG	133	ALA
54	CG	134	VAL
8	CH	34	ALA
8	CH	117	GLN

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Mol	Chain	Res	Type
9	CI	52	GLU
9	CI	55	ASP
10	CJ	61	ALA
10	CJ	74	VAL
11	CK	118	ASN
12	CL	76	HIS
12	CL	98	ARG
55	CM	46	GLU
55	CM	76	ILE
55	CM	93	GLY
14	CN	69	PRO
15	CO	45	HIS
15	CO	87	ARG
56	CP	47	GLU
17	CQ	56	ASP
17	CQ	76	ARG
20	CT	12	GLN
20	CT	72	ALA
21	CU	7	GLU
24	DC	13	ARG
24	DC	36	ASN
24	DC	38	LYS
24	DC	43	ASN
24	DC	98	GLY
24	DC	122	ALA
24	DC	196	ASN
24	DC	237	ARG
25	DD	43	ASP
25	DD	44	GLY
25	DD	48	ILE
25	DD	112	THR
25	DD	122	VAL
25	DD	167	ASN
25	DD	175	LEU
26	DE	45	ALA
26	DE	86	ALA
26	DE	165	HIS
26	DE	188	MET
58	DF	37	MET
58	DF	116	LEU
28	DG	9	VAL
28	DG	11	PRO

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Mol	Chain	Res	Type
28	DG	39	ALA
28	DG	40	VAL
28	DG	45	ALA
28	DG	136	ASP
28	DG	169	ARG
29	DH	97	ARG
30	DI	51	GLY
30	DI	83	ALA
30	DI	87	SER
30	DI	119	ALA
31	DJ	5	THR
31	DJ	6	ALA
31	DJ	43	GLU
32	DK	14	SER
32	DK	93	GLN
32	DK	103	VAL
33	DL	15	ALA
33	DL	93	ASN
34	DM	16	ARG
34	DM	69	PRO
34	DM	70	ASP
35	DN	15	SER
35	DN	71	ARG
35	DN	102	PHE
36	DO	3	LYS
36	DO	42	PRO
37	DP	42	PHE
37	DP	93	LYS
38	DQ	5	ARG
38	DQ	32	ARG
38	DQ	45	ALA
38	DQ	58	GLN
38	DQ	86	SER
38	DQ	87	VAL
38	DQ	91	ARG
39	DR	29	THR
39	DR	89	HIS
40	DS	32	ALA
41	DT	19	LYS
42	DU	40	LEU
42	DU	54	PRO
42	DU	89	GLY

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Mol	Chain	Res	Type
42	DU	101	THR
43	DV	33	GLY
43	DV	88	HIS
44	DW	25	PHE
44	DW	39	GLN
45	DX	34	SER
45	DX	63	ILE
46	DY	2	LYS
47	DZ	30	ARG
47	DZ	32	GLY
50	D2	43	THR
52	D4	3	VAL
52	D4	23	ILE
2	AB	128	LEU
2	AB	141	GLU
2	AB	169	HIS
4	AD	22	SER
4	AD	124	VAL
4	AD	172	VAL
4	AD	197	HIS
5	AE	50	GLY
5	AE	77	ASN
6	AF	99	ALA
9	AI	37	TYR
9	AI	56	MET
10	AJ	35	GLN
10	AJ	36	VAL
11	AK	40	ALA
11	AK	63	GLN
11	AK	118	ASN
12	AL	86	VAL
12	AL	121	PRO
13	AM	3	ILE
14	AN	43	ALA
14	AN	44	VAL
14	AN	80	ARG
15	AO	45	HIS
17	AQ	13	SER
19	AS	22	VAL
19	AS	34	SER
19	AS	48	ILE
20	AT	19	HIS

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Mol	Chain	Res	Type
24	BC	30	ALA
24	BC	37	SER
24	BC	200	MET
25	BD	148	GLN
26	BE	69	ARG
26	BE	86	ALA
28	BG	144	ALA
28	BG	153	PRO
29	BH	16	GLY
29	BH	68	ARG
29	BH	97	ARG
30	BI	6	ALA
30	BI	83	ALA
30	BI	89	SER
31	BJ	65	THR
31	BJ	98	GLU
32	BK	3	GLN
32	BK	5	GLN
32	BK	46	ALA
32	BK	75	SER
33	BL	54	GLN
34	BM	79	ALA
35	BN	3	HIS
36	BO	56	LYS
36	BO	105	ALA
37	BP	15	ASP
38	BQ	39	ILE
39	BR	91	GLN
41	BT	36	LYS
41	BT	68	LYS
41	BT	84	TYR
44	BW	10	ARG
44	BW	15	SER
44	BW	25	PHE
44	BW	76	ARG
45	BX	70	LEU
46	BY	9	LYS
46	BY	44	LYS
51	B3	22	LYS
2	CB	18	GLN
2	CB	73	ARG
2	CB	203	ASP

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Mol	Chain	Res	Type
2	CB	222	GLU
3	CC	128	MET
3	CC	167	TYR
3	CC	188	ALA
4	CD	37	PRO
4	CD	50	TYR
4	CD	83	GLY
4	CD	119	HIS
4	CD	166	LYS
5	CE	38	VAL
5	CE	111	ARG
5	CE	112	ALA
8	CH	57	GLU
8	CH	66	GLN
9	CI	119	LYS
10	CJ	36	VAL
10	CJ	82	LYS
10	CJ	83	THR
11	CK	92	ARG
55	CM	42	VAL
55	CM	77	LYS
15	CO	13	GLU
56	CP	46	LYS
56	CP	49	GLY
56	CP	54	LEU
17	CQ	4	ILE
18	CR	56	ARG
19	CS	3	SER
19	CS	7	GLY
19	CS	79	TYR
20	CT	68	LYS
24	DC	34	GLU
24	DC	45	ASN
24	DC	59	GLN
24	DC	190	THR
25	DD	99	GLU
25	DD	107	VAL
25	DD	173	GLN
26	DE	22	ASP
26	DE	63	LYS
26	DE	69	ARG
26	DE	126	VAL

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Mol	Chain	Res	Type
58	DF	94	ARG
28	DG	46	ASP
28	DG	91	VAL
28	DG	117	PRO
28	DG	118	ALA
28	DG	126	THR
29	DH	46	PHE
30	DI	35	MET
31	DJ	25	LEU
31	DJ	39	LYS
31	DJ	65	THR
31	DJ	72	LYS
32	DK	3	GLN
32	DK	5	GLN
32	DK	17	ARG
32	DK	89	ASN
32	DK	98	ARG
33	DL	19	LEU
34	DM	106	ASP
34	DM	110	GLU
35	DN	5	LYS
36	DO	37	ALA
37	DP	20	ARG
37	DP	103	THR
40	DS	65	ASP
41	DT	11	LEU
41	DT	61	LEU
42	DU	6	ARG
42	DU	64	ILE
42	DU	99	SER
44	DW	78	PHE
45	DX	27	ARG
48	D0	53	VAL
49	D1	24	LYS
50	D2	29	GLN
51	D3	3	ILE
52	D4	8	LYS
2	AB	67	LEU
2	AB	209	VAL
3	AC	35	ASP
3	AC	36	PHE
3	AC	65	VAL

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Mol	Chain	Res	Type
3	AC	107	LYS
4	AD	100	VAL
4	AD	166	LYS
5	AE	25	LYS
6	AF	53	LYS
6	AF	56	LYS
6	AF	92	THR
7	AG	95	ARG
8	AH	77	VAL
10	AJ	41	PRO
12	AL	72	ASN
12	AL	77	SER
14	AN	41	TRP
16	AP	42	ILE
16	AP	76	LYS
17	AQ	34	GLY
20	AT	76	ALA
21	AU	36	PHE
24	BC	64	VAL
24	BC	77	VAL
24	BC	256	THR
25	BD	11	MET
25	BD	109	VAL
25	BD	114	LYS
26	BE	45	ALA
26	BE	96	VAL
27	BF	8	LYS
27	BF	9	ASP
27	BF	38	GLY
27	BF	113	PHE
28	BG	2	ARG
28	BG	97	VAL
29	BH	26	ALA
30	BI	3	LYS
30	BI	20	SER
31	BJ	113	PRO
32	BK	6	THR
32	BK	54	LYS
32	BK	114	LYS
33	BL	64	PHE
34	BM	134	THR
35	BN	32	GLU

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Mol	Chain	Res	Type
35	BN	80	PHE
36	BO	77	ALA
37	BP	20	ARG
37	BP	86	LYS
39	BR	28	ALA
39	BR	98	ILE
41	BT	18	GLU
41	BT	55	VAL
41	BT	89	GLU
42	BU	53	GLN
44	BW	47	GLY
44	BW	77	LYS
44	BW	78	PHE
46	BY	46	VAL
47	BZ	34	THR
49	B1	22	THR
49	B1	50	GLU
4	CD	196	GLU
5	CE	29	ILE
5	CE	104	ILE
8	CH	98	LEU
10	CJ	75	ASP
12	CL	33	CYS
17	CQ	81	ALA
19	CS	49	ALA
19	CS	54	ARG
24	DC	106	PRO
24	DC	195	GLY
24	DC	238	ASN
25	DD	106	LYS
25	DD	172	VAL
26	DE	96	VAL
26	DE	129	PRO
58	DF	68	LYS
58	DF	70	ARG
58	DF	82	TYR
58	DF	87	LYS
58	DF	88	VAL
28	DG	53	PRO
28	DG	152	ARG
29	DH	121	VAL
31	DJ	23	LYS

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Mol	Chain	Res	Type
32	DK	6	THR
32	DK	108	ARG
34	DM	20	LEU
35	DN	85	PRO
36	DO	65	THR
37	DP	63	ILE
37	DP	65	ASN
37	DP	113	LEU
38	DQ	90	ASP
39	DR	53	PHE
39	DR	65	ALA
40	DS	37	THR
40	DS	61	ASN
42	DU	33	VAL
43	DV	84	PRO
44	DW	16	GLU
44	DW	23	LYS
44	DW	26	GLY
44	DW	32	ALA
44	DW	41	GLY
49	D1	50	GLU
51	D3	6	VAL
52	D4	16	ILE
2	AB	73	ARG
3	AC	173	PRO
4	AD	36	ALA
5	AE	109	ALA
7	AG	7	GLY
8	AH	26	MET
10	AJ	38	GLY
13	AM	23	GLY
16	AP	78	VAL
21	AU	37	TYR
21	AU	52	VAL
24	BC	167	ASP
25	BD	95	SER
25	BD	181	ASP
26	BE	67	ARG
26	BE	83	VAL
26	BE	188	MET
27	BF	83	PRO
28	BG	16	VAL

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Mol	Chain	Res	Type
28	BG	28	LYS
29	BH	75	LEU
29	BH	82	SER
30	BI	7	TYR
31	BJ	13	ARG
34	BM	26	VAL
34	BM	73	ILE
37	BP	5	LYS
39	BR	53	PHE
39	BR	65	ALA
42	BU	39	ASN
43	BV	15	GLY
44	BW	41	GLY
45	BX	76	LYS
2	CB	101	THR
3	CC	65	VAL
4	CD	27	ILE
9	CI	103	VAL
10	CJ	38	GLY
12	CL	87	LYS
14	CN	56	PRO
17	CQ	31	PRO
24	DC	64	VAL
24	DC	96	LYS
24	DC	204	LEU
25	DD	109	VAL
25	DD	161	MET
26	DE	13	THR
26	DE	60	TRP
58	DF	31	GLU
58	DF	83	PRO
58	DF	175	PRO
28	DG	155	PRO
28	DG	166	GLU
29	DH	124	THR
30	DI	31	GLY
31	DJ	13	ARG
33	DL	62	PRO
33	DL	92	LEU
35	DN	46	ARG
36	DO	8	ILE
36	DO	89	ASP

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Mol	Chain	Res	Type
36	DO	107	ALA
37	DP	109	ILE
38	DQ	23	TYR
39	DR	8	GLY
39	DR	52	PRO
41	DT	53	VAL
41	DT	74	ILE
42	DU	4	ILE
42	DU	12	VAL
42	DU	67	SER
47	DZ	2	LYS
48	D0	17	SER
50	D2	39	ARG
7	AG	79	VAL
11	AK	15	VAL
13	AM	9	PRO
27	BF	61	GLY
28	BG	25	ILE
29	BH	146	VAL
30	BI	97	VAL
34	BM	72	PRO
39	BR	64	VAL
2	CB	200	PRO
4	CD	5	GLY
12	CL	7	VAL
21	CU	26	GLY
24	DC	123	ILE
25	DD	2	ILE
26	DE	73	ILE
29	DH	99	ILE
30	DI	138	VAL
32	DK	119	ALA
38	DQ	6	GLY
38	DQ	39	ILE
40	DS	29	VAL
42	DU	35	VAL
42	DU	49	PRO
2	AB	148	GLY
7	AG	13	PRO
10	AJ	42	LEU
11	AK	73	VAL
12	AL	44	PRO

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Mol	Chain	Res	Type
16	AP	36	VAL
16	AP	49	GLY
20	AT	55	PRO
26	BE	148	ILE
29	BH	80	ILE
29	BH	103	VAL
29	BH	138	VAL
3	CC	77	GLY
3	CC	100	ILE
5	CE	132	PRO
10	CJ	33	GLY
55	CM	50	GLY
21	CU	10	PRO
24	DC	2	VAL
24	DC	246	PRO
31	DJ	96	ARG
37	DP	31	VAL
37	DP	104	GLY
41	DT	16	VAL
42	DU	41	VAL
42	DU	47	PRO
44	DW	30	VAL
5	AE	103	GLY
19	AS	25	GLY
28	BG	110	HIS
29	BH	142	VAL
30	BI	23	VAL
31	BJ	8	PRO
35	BN	60	VAL
40	BS	35	ILE
4	CD	38	GLY
54	CG	13	PRO
31	DJ	56	VAL
32	DK	48	PRO
33	DL	114	GLY
34	DM	36	VAL
37	DP	32	VAL
40	DS	103	ILE
47	DZ	54	VAL
50	D2	38	GLY
2	AB	28	PRO
4	AD	44	LYS

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Mol	Chain	Res	Type
12	AL	41	PRO
30	BI	31	GLY
6	CF	64	VAL
24	DC	72	GLY
24	DC	84	PRO
26	DE	174	GLY
58	DF	125	GLY
31	DJ	73	VAL
31	DJ	83	GLY
34	DM	19	GLY
40	DS	96	ILE
41	DT	47	VAL
43	DV	26	PHE
37	BP	4	ILE
12	CL	117	GLY
28	DG	16	VAL
29	DH	126	GLY
36	DO	58	ILE
38	DQ	7	VAL
43	DV	15	GLY
44	DW	22	VAL

5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	AB	180/180 (100%)	152 (84%)	28 (16%)	2	12
2	CB	180/180 (100%)	154 (86%)	26 (14%)	3	15
3	AC	170/170 (100%)	135 (79%)	35 (21%)	1	5
3	CC	170/170 (100%)	155 (91%)	15 (9%)	9	32
4	AD	172/172 (100%)	143 (83%)	29 (17%)	2	10
4	CD	172/172 (100%)	139 (81%)	33 (19%)	1	6
5	AE	113/113 (100%)	84 (74%)	29 (26%)	0	2
5	CE	113/113 (100%)	88 (78%)	25 (22%)	1	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	AF	87/87 (100%)	73 (84%)	14 (16%)	2	12
6	CF	87/87 (100%)	77 (88%)	10 (12%)	5	22
7	AG	124/124 (100%)	107 (86%)	17 (14%)	3	16
8	AH	104/104 (100%)	89 (86%)	15 (14%)	3	15
8	CH	104/104 (100%)	91 (88%)	13 (12%)	4	19
9	AI	105/105 (100%)	89 (85%)	16 (15%)	3	13
9	CI	105/105 (100%)	89 (85%)	16 (15%)	3	13
10	AJ	86/86 (100%)	74 (86%)	12 (14%)	3	16
10	CJ	86/86 (100%)	77 (90%)	9 (10%)	6	25
11	AK	90/90 (100%)	75 (83%)	15 (17%)	2	11
11	CK	90/90 (100%)	76 (84%)	14 (16%)	2	12
12	AL	103/103 (100%)	82 (80%)	21 (20%)	1	5
12	CL	103/103 (100%)	86 (84%)	17 (16%)	2	11
13	AM	92/92 (100%)	87 (95%)	5 (5%)	20	48
14	AN	79/83 (95%)	73 (92%)	6 (8%)	12	38
14	CN	79/83 (95%)	69 (87%)	10 (13%)	4	19
15	AO	76/76 (100%)	68 (90%)	8 (10%)	6	25
15	CO	76/76 (100%)	67 (88%)	9 (12%)	5	21
16	AP	65/65 (100%)	54 (83%)	11 (17%)	2	10
17	AQ	74/74 (100%)	57 (77%)	17 (23%)	1	3
17	CQ	74/74 (100%)	61 (82%)	13 (18%)	2	9
18	AR	48/48 (100%)	45 (94%)	3 (6%)	16	44
18	CR	48/48 (100%)	43 (90%)	5 (10%)	7	25
19	AS	70/70 (100%)	61 (87%)	9 (13%)	4	18
19	CS	70/70 (100%)	65 (93%)	5 (7%)	13	40
20	AT	65/65 (100%)	48 (74%)	17 (26%)	0	2
20	CT	65/65 (100%)	57 (88%)	8 (12%)	4	20
21	AU	44/44 (100%)	36 (82%)	8 (18%)	2	8
21	CU	44/44 (100%)	36 (82%)	8 (18%)	2	8
24	BC	216/216 (100%)	167 (77%)	49 (23%)	1	4
24	DC	216/216 (100%)	182 (84%)	34 (16%)	2	12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
25	BD	164/164 (100%)	126 (77%)	38 (23%)	1	3
25	DD	164/164 (100%)	131 (80%)	33 (20%)	1	6
26	BE	165/165 (100%)	122 (74%)	43 (26%)	0	2
26	DE	165/165 (100%)	147 (89%)	18 (11%)	6	23
27	BF	148/148 (100%)	118 (80%)	30 (20%)	1	5
28	BG	137/137 (100%)	106 (77%)	31 (23%)	1	4
28	DG	137/137 (100%)	122 (89%)	15 (11%)	6	23
29	BH	114/114 (100%)	97 (85%)	17 (15%)	3	14
29	DH	114/114 (100%)	102 (90%)	12 (10%)	6	25
30	BI	109/109 (100%)	95 (87%)	14 (13%)	4	19
30	DI	109/109 (100%)	104 (95%)	5 (5%)	24	53
31	BJ	116/116 (100%)	83 (72%)	33 (28%)	0	1
31	DJ	116/116 (100%)	98 (84%)	18 (16%)	2	13
32	BK	103/103 (100%)	74 (72%)	29 (28%)	0	1
32	DK	103/103 (100%)	79 (77%)	24 (23%)	1	3
33	BL	102/102 (100%)	67 (66%)	35 (34%)	0	1
33	DL	102/102 (100%)	88 (86%)	14 (14%)	3	16
34	BM	109/109 (100%)	84 (77%)	25 (23%)	1	4
34	DM	109/109 (100%)	98 (90%)	11 (10%)	7	26
35	BN	100/100 (100%)	84 (84%)	16 (16%)	2	12
35	DN	100/100 (100%)	82 (82%)	18 (18%)	2	8
36	BO	86/86 (100%)	68 (79%)	18 (21%)	1	5
36	DO	86/86 (100%)	79 (92%)	7 (8%)	11	36
37	BP	99/99 (100%)	70 (71%)	29 (29%)	0	1
37	DP	99/99 (100%)	86 (87%)	13 (13%)	4	18
38	BQ	89/89 (100%)	74 (83%)	15 (17%)	2	10
38	DQ	89/89 (100%)	76 (85%)	13 (15%)	3	15
39	BR	84/84 (100%)	58 (69%)	26 (31%)	0	1
39	DR	84/84 (100%)	70 (83%)	14 (17%)	2	11
40	BS	93/93 (100%)	67 (72%)	26 (28%)	0	1
40	DS	93/93 (100%)	78 (84%)	15 (16%)	2	12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	BT	80/80 (100%)	56 (70%)	24 (30%)	0	1
41	DT	80/80 (100%)	73 (91%)	7 (9%)	9	32
42	BU	83/83 (100%)	65 (78%)	18 (22%)	1	5
42	DU	83/83 (100%)	70 (84%)	13 (16%)	2	12
43	BV	78/78 (100%)	60 (77%)	18 (23%)	1	4
43	DV	78/78 (100%)	69 (88%)	9 (12%)	5	22
44	BW	59/59 (100%)	39 (66%)	20 (34%)	0	1
44	DW	59/59 (100%)	44 (75%)	15 (25%)	0	2
45	BX	67/67 (100%)	52 (78%)	15 (22%)	1	4
45	DX	67/67 (100%)	60 (90%)	7 (10%)	7	25
46	BY	55/55 (100%)	43 (78%)	12 (22%)	1	5
46	DY	55/55 (100%)	51 (93%)	4 (7%)	13	39
47	BZ	48/48 (100%)	31 (65%)	17 (35%)	0	0
47	DZ	48/48 (100%)	37 (77%)	11 (23%)	1	4
48	B0	47/47 (100%)	37 (79%)	10 (21%)	1	5
48	D0	47/47 (100%)	41 (87%)	6 (13%)	4	19
49	B1	45/45 (100%)	36 (80%)	9 (20%)	1	6
49	D1	45/45 (100%)	40 (89%)	5 (11%)	6	23
50	B2	38/38 (100%)	32 (84%)	6 (16%)	2	12
50	D2	38/38 (100%)	36 (95%)	2 (5%)	20	49
51	B3	51/51 (100%)	44 (86%)	7 (14%)	3	16
51	D3	51/51 (100%)	40 (78%)	11 (22%)	1	5
52	B4	34/34 (100%)	29 (85%)	5 (15%)	3	14
52	D4	34/34 (100%)	29 (85%)	5 (15%)	3	14
54	CG	123/123 (100%)	105 (85%)	18 (15%)	3	15
55	CM	91/91 (100%)	81 (89%)	10 (11%)	6	23
56	CP	65/65 (100%)	52 (80%)	13 (20%)	1	6
58	DF	149/149 (100%)	122 (82%)	27 (18%)	2	8
All	All	9331/9339 (100%)	7718 (83%)	1613 (17%)	2	9

All (1613) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	AB	10	LYS
2	AB	13	VAL
2	AB	15	PHE
2	AB	19	THR
2	AB	20	ARG
2	AB	26	MET
2	AB	30	ILE
2	AB	36	LYS
2	AB	38	HIS
2	AB	42	LEU
2	AB	53	LEU
2	AB	56	LEU
2	AB	67	LEU
2	AB	88	GLN
2	AB	90	PHE
2	AB	100	LEU
2	AB	108	GLN
2	AB	116	LEU
2	AB	119	GLN
2	AB	128	LEU
2	AB	130	LYS
2	AB	141	GLU
2	AB	143	LEU
2	AB	156	LEU
2	AB	158	ASP
2	AB	170	ILE
2	AB	206	ILE
2	AB	207	ARG
3	AC	2	GLN
3	AC	13	ILE
3	AC	14	VAL
3	AC	17	TRP
3	AC	24	ASN
3	AC	25	THR
3	AC	26	LYS
3	AC	32	LEU
3	AC	35	ASP
3	AC	36	PHE
3	AC	42	LEU
3	AC	50	SER
3	AC	54	ILE
3	AC	57	GLU
3	AC	58	ARG

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Mol	Chain	Res	Type
3	AC	69	THR
3	AC	79	LYS
3	AC	89	VAL
3	AC	102	ILE
3	AC	119	ILE
3	AC	120	THR
3	AC	127	VAL
3	AC	139	ASN
3	AC	143	LEU
3	AC	148	ILE
3	AC	149	LYS
3	AC	152	VAL
3	AC	156	LEU
3	AC	161	ILE
3	AC	164	THR
3	AC	165	GLU
3	AC	166	TRP
3	AC	177	LEU
3	AC	184	ASN
3	AC	199	VAL
4	AD	2	ARG
4	AD	11	SER
4	AD	19	PHE
4	AD	25	ARG
4	AD	30	LYS
4	AD	31	CYS
4	AD	43	ARG
4	AD	47	LEU
4	AD	52	VAL
4	AD	54	LEU
4	AD	55	ARG
4	AD	58	GLN
4	AD	69	ARG
4	AD	82	LYS
4	AD	88	ASN
4	AD	99	ASN
4	AD	115	GLN
4	AD	122	ILE
4	AD	128	VAL
4	AD	131	ILE
4	AD	137	SER
4	AD	141	VAL

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Mol	Chain	Res	Type
4	AD	144	ILE
4	AD	155	LYS
4	AD	160	LEU
4	AD	166	LYS
4	AD	170	LEU
4	AD	178	GLU
4	AD	205	LYS
5	AE	9	GLU
5	AE	11	GLN
5	AE	14	LEU
5	AE	18	ASN
5	AE	20	VAL
5	AE	24	VAL
5	AE	25	LYS
5	AE	29	ILE
5	AE	37	VAL
5	AE	68	ARG
5	AE	75	LEU
5	AE	79	THR
5	AE	81	GLN
5	AE	93	VAL
5	AE	95	MET
5	AE	96	GLN
5	AE	113	VAL
5	AE	115	GLU
5	AE	116	VAL
5	AE	119	VAL
5	AE	121	ASN
5	AE	123	LEU
5	AE	135	VAL
5	AE	136	VAL
5	AE	139	THR
5	AE	140	ILE
5	AE	141	ASP
5	AE	155	LYS
5	AE	156	ARG
6	AF	7	VAL
6	AF	14	GLN
6	AF	24	ARG
6	AF	29	ILE
6	AF	39	LEU
6	AF	46	GLN

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Mol	Chain	Res	Type
6	AF	54	LEU
6	AF	55	HIS
6	AF	68	GLN
6	AF	69	GLU
6	AF	77	THR
6	AF	84	VAL
6	AF	85	ILE
6	AF	86	ARG
7	AG	6	ILE
7	AG	8	GLN
7	AG	12	LEU
7	AG	20	GLU
7	AG	22	LEU
7	AG	31	VAL
7	AG	37	THR
7	AG	47	GLU
7	AG	62	GLU
7	AG	68	VAL
7	AG	83	THR
7	AG	85	GLN
7	AG	93	VAL
7	AG	105	GLU
7	AG	117	LEU
7	AG	123	LEU
7	AG	143	MET
8	AH	11	THR
8	AH	21	LYS
8	AH	64	TYR
8	AH	66	GLN
8	AH	72	GLU
8	AH	76	ARG
8	AH	79	ARG
8	AH	82	LEU
8	AH	89	ASP
8	AH	98	LEU
8	AH	110	MET
8	AH	111	THR
8	AH	120	LEU
8	AH	124	ILE
8	AH	128	VAL
9	AI	4	GLN
9	AI	27	ILE

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Mol	Chain	Res	Type
9	AI	28	VAL
9	AI	35	GLU
9	AI	44	ARG
9	AI	47	VAL
9	AI	54	VAL
9	AI	56	MET
9	AI	67	LYS
9	AI	86	LEU
9	AI	87	MET
9	AI	93	LEU
9	AI	115	VAL
9	AI	125	GLN
9	AI	126	PHE
9	AI	128	LYS
10	AJ	17	LEU
10	AJ	22	THR
10	AJ	32	THR
10	AJ	35	GLN
10	AJ	44	THR
10	AJ	50	THR
10	AJ	59	LYS
10	AJ	70	HIS
10	AJ	73	LEU
10	AJ	87	LEU
10	AJ	89	ARG
10	AJ	96	VAL
11	AK	17	ASP
11	AK	30	ILE
11	AK	51	PHE
11	AK	64	VAL
11	AK	76	TYR
11	AK	78	ILE
11	AK	82	GLU
11	AK	96	ILE
11	AK	100	ASN
11	AK	106	ILE
11	AK	111	ASP
11	AK	118	ASN
11	AK	124	LYS
11	AK	125	LYS
11	AK	128	VAL
12	AL	3	VAL

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Mol	Chain	Res	Type
12	AL	9	LYS
12	AL	15	VAL
12	AL	18	SER
12	AL	26	CYS
12	AL	34	THR
12	AL	35	ARG
12	AL	43	LYS
12	AL	49	ARG
12	AL	51	VAL
12	AL	63	THR
12	AL	66	ILE
12	AL	73	LEU
12	AL	74	GLN
12	AL	81	ILE
12	AL	82	ARG
12	AL	87	LYS
12	AL	88	ASP
12	AL	94	TYR
12	AL	101	LEU
12	AL	109	ARG
13	AM	6	ILE
13	AM	53	ASP
13	AM	58	GLU
13	AM	59	VAL
13	AM	106	ARG
14	AN	3	GLN
14	AN	11	LYS
14	AN	27	LYS
14	AN	59	GLN
14	AN	61	ASN
14	AN	83	VAL
15	AO	34	GLN
15	AO	57	ARG
15	AO	63	ARG
15	AO	65	LEU
15	AO	66	LEU
15	AO	67	ASP
15	AO	84	LEU
15	AO	86	LEU
16	AP	1	MET
16	AP	6	LEU
16	AP	12	LYS

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Mol	Chain	Res	Type
16	AP	19	VAL
16	AP	28	ARG
16	AP	36	VAL
16	AP	46	LYS
16	AP	55	ASP
16	AP	67	ILE
16	AP	68	SER
16	AP	80	LYS
17	AQ	3	LYS
17	AQ	16	MET
17	AQ	20	ILE
17	AQ	21	VAL
17	AQ	28	VAL
17	AQ	29	LYS
17	AQ	32	ILE
17	AQ	37	ILE
17	AQ	48	GLU
17	AQ	49	ASN
17	AQ	51	GLU
17	AQ	54	ILE
17	AQ	58	VAL
17	AQ	74	LEU
17	AQ	75	VAL
17	AQ	78	VAL
17	AQ	80	LYS
18	AR	20	ILE
18	AR	33	THR
18	AR	54	LEU
19	AS	6	LYS
19	AS	20	LYS
19	AS	42	ASN
19	AS	48	ILE
19	AS	54	ARG
19	AS	59	VAL
19	AS	61	VAL
19	AS	64	GLU
19	AS	79	TYR
20	AT	2	ASN
20	AT	4	LYS
20	AT	11	ILE
20	AT	14	GLU
20	AT	26	MET

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Mol	Chain	Res	Type
20	AT	27	MET
20	AT	33	LYS
20	AT	35	TYR
20	AT	38	ILE
20	AT	42	ASP
20	AT	48	LYS
20	AT	53	MET
20	AT	67	HIS
20	AT	68	LYS
20	AT	75	LYS
20	AT	77	ASN
20	AT	79	THR
21	AU	8	ASN
21	AU	15	LEU
21	AU	19	LYS
21	AU	27	VAL
21	AU	33	ARG
21	AU	39	LYS
21	AU	42	THR
21	AU	45	LYS
24	BC	12	ARG
24	BC	27	LYS
24	BC	35	LYS
24	BC	38	LYS
24	BC	43	ASN
24	BC	49	THR
24	BC	50	THR
24	BC	53	ILE
24	BC	73	ILE
24	BC	77	VAL
24	BC	85	ASN
24	BC	90	ILE
24	BC	93	VAL
24	BC	103	ILE
24	BC	104	LEU
24	BC	109	LEU
24	BC	110	LYS
24	BC	114	GLN
24	BC	115	ILE
24	BC	120	ASP
24	BC	123	ILE
24	BC	133	ASN

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Mol	Chain	Res	Type
24	BC	142	ASN
24	BC	143	VAL
24	BC	155	ARG
24	BC	163	ILE
24	BC	164	VAL
24	BC	171	VAL
24	BC	172	THR
24	BC	173	LEU
24	BC	175	LEU
24	BC	190	THR
24	BC	193	GLU
24	BC	202	ARG
24	BC	203	VAL
24	BC	213	ARG
24	BC	215	VAL
24	BC	216	ARG
24	BC	222	THR
24	BC	224	MET
24	BC	225	ASN
24	BC	227	VAL
24	BC	231	HIS
24	BC	250	GLN
24	BC	252	LYS
24	BC	254	LYS
24	BC	261	ARG
24	BC	262	THR
24	BC	268	ARG
25	BD	4	LEU
25	BD	9	VAL
25	BD	14	ILE
25	BD	38	LYS
25	BD	43	ASP
25	BD	45	TYR
25	BD	49	GLN
25	BD	51	THR
25	BD	61	THR
25	BD	73	VAL
25	BD	89	GLU
25	BD	90	PHE
25	BD	91	THR
25	BD	95	SER
25	BD	98	VAL

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Mol	Chain	Res	Type
25	BD	101	PHE
25	BD	114	LYS
25	BD	118	PHE
25	BD	122	VAL
25	BD	124	ARG
25	BD	131	ASP
25	BD	141	ARG
25	BD	142	VAL
25	BD	146	ILE
25	BD	150	GLN
25	BD	151	THR
25	BD	159	LYS
25	BD	170	VAL
25	BD	171	THR
25	BD	176	ASP
25	BD	177	VAL
25	BD	183	GLU
25	BD	186	LEU
25	BD	193	VAL
25	BD	197	THR
25	BD	201	LEU
25	BD	203	VAL
25	BD	207	VAL
26	BE	4	VAL
26	BE	5	LEU
26	BE	12	LEU
26	BE	14	VAL
26	BE	18	THR
26	BE	21	ARG
26	BE	28	VAL
26	BE	43	THR
26	BE	44	ARG
26	BE	48	THR
26	BE	61	ARG
26	BE	65	THR
26	BE	69	ARG
26	BE	72	SER
26	BE	77	ILE
26	BE	84	THR
26	BE	90	GLN
26	BE	91	ASP
26	BE	108	ILE

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Mol	Chain	Res	Type
26	BE	109	LEU
26	BE	113	VAL
26	BE	116	ASP
26	BE	118	LEU
26	BE	119	ILE
26	BE	121	VAL
26	BE	124	PHE
26	BE	127	GLU
26	BE	132	LYS
26	BE	136	GLN
26	BE	144	GLU
26	BE	146	VAL
26	BE	147	LEU
26	BE	149	ILE
26	BE	153	LEU
26	BE	163	ASN
26	BE	171	ASP
26	BE	175	ILE
26	BE	176	ASP
26	BE	178	VAL
26	BE	187	VAL
26	BE	189	THR
26	BE	198	GLU
26	BE	200	LEU
27	BF	3	LEU
27	BF	8	LYS
27	BF	9	ASP
27	BF	12	VAL
27	BF	14	LYS
27	BF	17	THR
27	BF	24	VAL
27	BF	34	THR
27	BF	35	LEU
27	BF	36	ASN
27	BF	43	ILE
27	BF	46	LYS
27	BF	47	LYS
27	BF	62	GLN
27	BF	65	LEU
27	BF	80	GLN
27	BF	90	LEU
27	BF	103	ILE

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Mol	Chain	Res	Type
27	BF	107	VAL
27	BF	109	ARG
27	BF	114	ARG
27	BF	132	ARG
27	BF	134	GLN
27	BF	136	ILE
27	BF	153	ILE
27	BF	154	THR
27	BF	157	THR
27	BF	163	GLU
27	BF	166	ARG
27	BF	168	LEU
28	BG	3	VAL
28	BG	8	VAL
28	BG	23	ILE
28	BG	29	ASN
28	BG	32	LEU
28	BG	34	ARG
28	BG	35	THR
28	BG	37	ASN
28	BG	40	VAL
28	BG	42	VAL
28	BG	50	THR
28	BG	59	ASP
28	BG	68	ARG
28	BG	80	GLU
28	BG	84	LYS
28	BG	86	LEU
28	BG	88	LEU
28	BG	101	VAL
28	BG	112	VAL
28	BG	115	GLN
28	BG	116	LEU
28	BG	120	ILE
28	BG	121	THR
28	BG	123	GLU
28	BG	131	VAL
28	BG	132	LEU
28	BG	140	ILE
28	BG	159	LYS
28	BG	165	ASP
28	BG	170	THR

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Mol	Chain	Res	Type
28	BG	174	LYS
29	BH	3	VAL
29	BH	6	LEU
29	BH	12	LEU
29	BH	14	SER
29	BH	15	LEU
29	BH	18	GLN
29	BH	28	ASN
29	BH	31	VAL
29	BH	43	ASN
29	BH	50	ARG
29	BH	54	LEU
29	BH	68	ARG
29	BH	75	LEU
29	BH	83	LYS
29	BH	96	THR
29	BH	104	THR
29	BH	135	HIS
30	BI	10	LEU
30	BI	11	GLN
30	BI	12	VAL
30	BI	23	VAL
30	BI	30	GLN
30	BI	39	LYS
30	BI	49	GLU
30	BI	61	TYR
30	BI	71	LYS
30	BI	81	LYS
30	BI	85	ILE
30	BI	86	LYS
30	BI	95	ASP
30	BI	107	GLU
31	BJ	1	MET
31	BJ	2	LYS
31	BJ	3	THR
31	BJ	4	PHE
31	BJ	5	THR
31	BJ	7	LYS
31	BJ	11	VAL
31	BJ	17	VAL
31	BJ	24	THR
31	BJ	25	LEU

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Mol	Chain	Res	Type
31	BJ	30	THR
31	BJ	34	ARG
31	BJ	36	LEU
31	BJ	40	HIS
31	BJ	44	TYR
31	BJ	54	ILE
31	BJ	55	ILE
31	BJ	57	LEU
31	BJ	64	VAL
31	BJ	65	THR
31	BJ	67	ASN
31	BJ	72	LYS
31	BJ	84	ILE
31	BJ	86	GLN
31	BJ	88	THR
31	BJ	103	ILE
31	BJ	105	VAL
31	BJ	109	LEU
31	BJ	111	LYS
31	BJ	129	GLU
31	BJ	138	GLN
31	BJ	139	VAL
31	BJ	140	LEU
32	BK	2	ILE
32	BK	8	LEU
32	BK	10	VAL
32	BK	13	ASN
32	BK	18	ARG
32	BK	20	MET
32	BK	23	LYS
32	BK	25	LEU
32	BK	30	ARG
32	BK	39	ILE
32	BK	43	ILE
32	BK	47	ILE
32	BK	51	LYS
32	BK	52	VAL
32	BK	54	LYS
32	BK	58	LEU
32	BK	62	VAL
32	BK	69	VAL
32	BK	73	ASP

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Mol	Chain	Res	Type
32	BK	88	ASN
32	BK	89	ASN
32	BK	91	SER
32	BK	93	GLN
32	BK	95	ILE
32	BK	99	ILE
32	BK	104	THR
32	BK	111	LYS
32	BK	114	LYS
32	BK	115	ILE
33	BL	3	LEU
33	BL	4	ASN
33	BL	6	LEU
33	BL	7	SER
33	BL	12	SER
33	BL	13	LYS
33	BL	19	LEU
33	BL	21	ARG
33	BL	27	LEU
33	BL	30	THR
33	BL	33	ARG
33	BL	35	HIS
33	BL	39	LYS
33	BL	46	VAL
33	BL	47	ARG
33	BL	51	GLU
33	BL	55	MET
33	BL	61	LEU
33	BL	66	PHE
33	BL	74	THR
33	BL	80	SER
33	BL	82	LEU
33	BL	93	ASN
33	BL	94	THR
33	BL	99	ASN
33	BL	101	ILE
33	BL	103	ILE
33	BL	104	GLN
33	BL	110	VAL
33	BL	111	ILE
33	BL	112	LEU
33	BL	115	GLU

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Mol	Chain	Res	Type
33	BL	118	THR
33	BL	122	VAL
33	BL	135	ILE
34	BM	2	LEU
34	BM	3	GLN
34	BM	5	LYS
34	BM	6	ARG
34	BM	8	LYS
34	BM	10	ARG
34	BM	13	HIS
34	BM	24	THR
34	BM	25	ASP
34	BM	27	SER
34	BM	33	LEU
34	BM	36	VAL
34	BM	69	PRO
34	BM	70	ASP
34	BM	75	GLU
34	BM	80	VAL
34	BM	90	GLU
34	BM	96	ILE
34	BM	97	GLN
34	BM	101	VAL
34	BM	102	LEU
34	BM	110	GLU
34	BM	126	ILE
34	BM	133	LYS
34	BM	134	THR
35	BN	2	ARG
35	BN	10	LEU
35	BN	15	SER
35	BN	23	ASN
35	BN	33	ILE
35	BN	35	LYS
35	BN	38	LEU
35	BN	57	THR
35	BN	69	ARG
35	BN	71	ARG
35	BN	75	ILE
35	BN	83	LEU
35	BN	97	ILE
35	BN	116	VAL

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Mol	Chain	Res	Type
35	BN	118	ARG
35	BN	120	GLU
36	BO	8	ILE
36	BO	9	ARG
36	BO	17	LYS
36	BO	31	THR
36	BO	36	TYR
36	BO	39	VAL
36	BO	48	LEU
36	BO	65	THR
36	BO	74	VAL
36	BO	80	GLU
36	BO	83	LEU
36	BO	84	GLU
36	BO	87	ILE
36	BO	94	ARG
36	BO	106	LEU
36	BO	111	ARG
36	BO	112	GLU
36	BO	116	GLN
37	BP	3	ILE
37	BP	4	ILE
37	BP	6	GLN
37	BP	14	GLN
37	BP	16	VAL
37	BP	19	PHE
37	BP	20	ARG
37	BP	24	THR
37	BP	25	VAL
37	BP	29	VAL
37	BP	35	SER
37	BP	36	LYS
37	BP	37	LYS
37	BP	38	ARG
37	BP	46	VAL
37	BP	49	ILE
37	BP	58	PHE
37	BP	59	THR
37	BP	61	ARG
37	BP	69	VAL
37	BP	72	VAL
37	BP	75	THR

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Mol	Chain	Res	Type
37	BP	79	VAL
37	BP	80	VAL
37	BP	83	ILE
37	BP	92	ARG
37	BP	93	LYS
37	BP	96	LEU
37	BP	101	GLU
38	BQ	2	ARG
38	BQ	7	VAL
38	BQ	10	ARG
38	BQ	17	LEU
38	BQ	27	ARG
38	BQ	40	LYS
38	BQ	49	ARG
38	BQ	50	ARG
38	BQ	59	LEU
38	BQ	69	ARG
38	BQ	79	ILE
38	BQ	88	GLU
38	BQ	94	LEU
38	BQ	96	ASP
38	BQ	97	ILE
39	BR	4	VAL
39	BR	10	LYS
39	BR	13	ARG
39	BR	14	VAL
39	BR	20	VAL
39	BR	25	LEU
39	BR	27	ILE
39	BR	33	VAL
39	BR	37	GLU
39	BR	38	VAL
39	BR	39	LEU
39	BR	45	GLU
39	BR	46	GLU
39	BR	47	VAL
39	BR	48	LYS
39	BR	54	VAL
39	BR	55	ASP
39	BR	58	VAL
39	BR	63	VAL
39	BR	72	VAL

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Mol	Chain	Res	Type
39	BR	85	LYS
39	BR	86	GLN
39	BR	94	THR
39	BR	97	LYS
39	BR	101	ILE
39	BR	102	SER
40	BS	1	MET
40	BS	3	THR
40	BS	4	ILE
40	BS	24	ILE
40	BS	30	SER
40	BS	33	LEU
40	BS	35	ILE
40	BS	36	LEU
40	BS	39	THR
40	BS	41	LYS
40	BS	45	VAL
40	BS	48	LYS
40	BS	50	VAL
40	BS	66	ILE
40	BS	68	ASP
40	BS	71	VAL
40	BS	73	LYS
40	BS	74	ILE
40	BS	76	VAL
40	BS	83	LYS
40	BS	84	ARG
40	BS	88	ARG
40	BS	92	ARG
40	BS	96	ILE
40	BS	101	SER
40	BS	107	VAL
41	BT	2	ILE
41	BT	3	ARG
41	BT	4	GLU
41	BT	8	LEU
41	BT	17	SER
41	BT	18	GLU
41	BT	19	LYS
41	BT	29	THR
41	BT	30	ILE
41	BT	31	VAL

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Mol	Chain	Res	Type
41	BT	32	LEU
41	BT	37	ASP
41	BT	39	THR
41	BT	43	ILE
41	BT	48	GLN
41	BT	49	LYS
41	BT	50	LEU
41	BT	57	VAL
41	BT	58	VAL
41	BT	61	LEU
41	BT	67	VAL
41	BT	68	LYS
41	BT	69	ARG
41	BT	74	ILE
42	BU	5	ARG
42	BU	6	ARG
42	BU	8	ASP
42	BU	10	VAL
42	BU	20	LYS
42	BU	23	LYS
42	BU	33	VAL
42	BU	34	ILE
42	BU	42	LYS
42	BU	43	LYS
42	BU	61	GLU
42	BU	64	ILE
42	BU	67	SER
42	BU	71	ILE
42	BU	82	VAL
42	BU	86	PHE
42	BU	99	SER
42	BU	102	ILE
43	BV	5	ASN
43	BV	8	VAL
43	BV	10	LYS
43	BV	17	SER
43	BV	20	LEU
43	BV	35	GLU
43	BV	41	GLU
43	BV	43	ASP
43	BV	46	LYS
43	BV	51	GLN

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Mol	Chain	Res	Type
43	BV	55	GLU
43	BV	60	VAL
43	BV	61	LEU
43	BV	63	ILE
43	BV	65	VAL
43	BV	66	ASP
43	BV	77	VAL
43	BV	92	VAL
44	BW	14	ASP
44	BW	15	SER
44	BW	16	GLU
44	BW	22	VAL
44	BW	24	ARG
44	BW	25	PHE
44	BW	30	VAL
44	BW	31	LEU
44	BW	38	ARG
44	BW	40	ARG
44	BW	45	HIS
44	BW	49	ASN
44	BW	54	ARG
44	BW	58	LEU
44	BW	67	LYS
44	BW	70	VAL
44	BW	71	LYS
44	BW	76	ARG
44	BW	77	LYS
44	BW	80	SER
45	BX	6	VAL
45	BX	10	ARG
45	BX	24	THR
45	BX	26	ARG
45	BX	29	LEU
45	BX	36	ARG
45	BX	41	SER
45	BX	46	VAL
45	BX	47	THR
45	BX	53	LYS
45	BX	58	ILE
45	BX	63	ILE
45	BX	65	THR
45	BX	70	LEU

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Mol	Chain	Res	Type
45	BX	77	TYR
46	BY	9	LYS
46	BY	10	SER
46	BY	14	LEU
46	BY	17	GLU
46	BY	19	LEU
46	BY	22	LEU
46	BY	37	LEU
46	BY	39	GLN
46	BY	42	LEU
46	BY	47	ARG
46	BY	56	LEU
46	BY	59	GLU
47	BZ	2	LYS
47	BZ	3	THR
47	BZ	4	ILE
47	BZ	5	LYS
47	BZ	8	GLN
47	BZ	9	THR
47	BZ	15	ARG
47	BZ	23	LEU
47	BZ	29	ARG
47	BZ	30	ARG
47	BZ	35	VAL
47	BZ	37	ARG
47	BZ	38	GLU
47	BZ	40	THR
47	BZ	43	ILE
47	BZ	54	VAL
47	BZ	56	VAL
48	B0	5	ASN
48	B0	8	THR
48	B0	9	ARG
48	B0	10	SER
48	B0	21	LEU
48	B0	25	THR
48	B0	26	SER
48	B0	28	SER
48	B0	39	ARG
48	B0	42	ILE
49	B1	4	ILE
49	B1	9	LYS

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Mol	Chain	Res	Type
49	B1	11	VAL
49	B1	16	THR
49	B1	29	LYS
49	B1	33	LEU
49	B1	35	LEU
49	B1	42	VAL
49	B1	46	VAL
50	B2	1	MET
50	B2	3	ARG
50	B2	4	THR
50	B2	9	VAL
50	B2	12	ARG
50	B2	39	ARG
51	B3	5	THR
51	B3	7	ARG
51	B3	22	LYS
51	B3	31	ILE
51	B3	49	VAL
51	B3	54	LEU
51	B3	56	LEU
52	B4	3	VAL
52	B4	4	ARG
52	B4	9	LYS
52	B4	13	ASN
52	B4	33	HIS
2	CB	8	MET
2	CB	9	LEU
2	CB	10	LYS
2	CB	14	HIS
2	CB	21	TYR
2	CB	26	MET
2	CB	36	LYS
2	CB	39	ILE
2	CB	42	LEU
2	CB	46	VAL
2	CB	69	VAL
2	CB	84	LEU
2	CB	88	GLN
2	CB	103	TRP
2	CB	107	ARG
2	CB	108	GLN
2	CB	109	SER

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Mol	Chain	Res	Type
2	CB	124	THR
2	CB	125	PHE
2	CB	131	LYS
2	CB	146	SER
2	CB	147	LEU
2	CB	162	VAL
2	CB	182	VAL
2	CB	196	ASP
2	CB	199	ILE
3	CC	15	LYS
3	CC	26	LYS
3	CC	35	ASP
3	CC	41	TYR
3	CC	90	VAL
3	CC	114	LEU
3	CC	123	LEU
3	CC	139	ASN
3	CC	148	ILE
3	CC	152	VAL
3	CC	161	ILE
3	CC	166	TRP
3	CC	177	LEU
3	CC	183	TYR
3	CC	201	ILE
4	CD	2	ARG
4	CD	8	LEU
4	CD	10	LEU
4	CD	24	VAL
4	CD	25	ARG
4	CD	30	LYS
4	CD	31	CYS
4	CD	33	ILE
4	CD	34	GLU
4	CD	47	LEU
4	CD	52	VAL
4	CD	55	ARG
4	CD	57	LYS
4	CD	58	GLN
4	CD	67	LEU
4	CD	80	ARG
4	CD	84	ASN
4	CD	106	PHE

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Mol	Chain	Res	Type
4	CD	116	LEU
4	CD	137	SER
4	CD	140	ASP
4	CD	142	VAL
4	CD	147	LYS
4	CD	151	GLN
4	CD	155	LYS
4	CD	168	THR
4	CD	170	LEU
4	CD	172	VAL
4	CD	182	LYS
4	CD	183	ARG
4	CD	190	LEU
4	CD	194	ILE
4	CD	199	ILE
5	CE	11	GLN
5	CE	13	LYS
5	CE	17	VAL
5	CE	18	ASN
5	CE	20	VAL
5	CE	24	VAL
5	CE	25	LYS
5	CE	29	ILE
5	CE	35	LEU
5	CE	55	VAL
5	CE	59	ILE
5	CE	75	LEU
5	CE	76	ASN
5	CE	80	LEU
5	CE	87	VAL
5	CE	92	ARG
5	CE	95	MET
5	CE	99	SER
5	CE	104	ILE
5	CE	119	VAL
5	CE	133	ILE
5	CE	136	VAL
5	CE	139	THR
5	CE	144	GLU
5	CE	151	MET
6	CF	6	ILE
6	CF	7	VAL

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Mol	Chain	Res	Type
6	CF	33	GLU
6	CF	44	ARG
6	CF	54	LEU
6	CF	56	LYS
6	CF	61	LEU
6	CF	85	ILE
6	CF	86	ARG
6	CF	89	VAL
54	CG	3	ARG
54	CG	5	VAL
54	CG	6	ILE
54	CG	10	LYS
54	CG	12	LEU
54	CG	16	LYS
54	CG	34	LYS
54	CG	35	LYS
54	CG	55	LYS
54	CG	58	LEU
54	CG	66	GLU
54	CG	75	LYS
54	CG	78	ARG
54	CG	85	GLN
54	CG	100	MET
54	CG	119	LEU
54	CG	123	LEU
54	CG	148	LYS
8	CH	42	GLU
8	CH	46	GLU
8	CH	50	VAL
8	CH	59	GLU
8	CH	70	VAL
8	CH	71	VAL
8	CH	76	ARG
8	CH	82	LEU
8	CH	89	ASP
8	CH	93	LYS
8	CH	102	VAL
8	CH	110	MET
8	CH	128	VAL
9	CI	4	GLN
9	CI	5	TYR
9	CI	20	ILE

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Mol	Chain	Res	Type
9	CI	27	ILE
9	CI	37	TYR
9	CI	45	MET
9	CI	47	VAL
9	CI	53	LEU
9	CI	54	VAL
9	CI	60	LEU
9	CI	71	ILE
9	CI	83	THR
9	CI	87	MET
9	CI	115	VAL
9	CI	125	GLN
9	CI	129	ARG
10	CJ	5	ARG
10	CJ	15	HIS
10	CJ	48	ARG
10	CJ	50	THR
10	CJ	67	ILE
10	CJ	69	THR
10	CJ	82	LYS
10	CJ	87	LEU
10	CJ	92	LEU
11	CK	19	VAL
11	CK	27	ASN
11	CK	33	ILE
11	CK	73	VAL
11	CK	78	ILE
11	CK	80	ASN
11	CK	81	LEU
11	CK	83	VAL
11	CK	95	THR
11	CK	96	ILE
11	CK	106	ILE
11	CK	107	THR
11	CK	115	ILE
11	CK	128	VAL
12	CL	5	GLN
12	CL	6	LEU
12	CL	9	LYS
12	CL	14	LYS
12	CL	19	ASN
12	CL	20	VAL

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Mol	Chain	Res	Type
12	CL	28	GLN
12	CL	39	THR
12	CL	48	LEU
12	CL	57	THR
12	CL	62	VAL
12	CL	72	ASN
12	CL	88	ASP
12	CL	96	THR
12	CL	97	VAL
12	CL	107	LYS
12	CL	120	ARG
55	CM	12	LYS
55	CM	18	LEU
55	CM	24	VAL
55	CM	28	ARG
55	CM	32	ILE
55	CM	46	GLU
55	CM	53	ASP
55	CM	77	LYS
55	CM	92	ARG
55	CM	113	LYS
14	CN	3	GLN
14	CN	6	LYS
14	CN	27	LYS
14	CN	41	TRP
14	CN	52	ARG
14	CN	53	ASP
14	CN	61	ASN
14	CN	72	PHE
14	CN	81	ILE
14	CN	96	LYS
15	CO	13	GLU
15	CO	16	ARG
15	CO	34	GLN
15	CO	38	LEU
15	CO	39	GLN
15	CO	45	HIS
15	CO	69	LEU
15	CO	79	GLN
15	CO	80	LEU
56	CP	1	MET
56	CP	2	VAL

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Mol	Chain	Res	Type
56	CP	3	THR
56	CP	4	ILE
56	CP	6	LEU
56	CP	26	ASN
56	CP	46	LYS
56	CP	54	LEU
56	CP	56	ARG
56	CP	57	ILE
56	CP	69	ASP
56	CP	71	VAL
56	CP	74	LEU
17	CQ	6	THR
17	CQ	7	LEU
17	CQ	20	ILE
17	CQ	28	VAL
17	CQ	32	ILE
17	CQ	37	ILE
17	CQ	39	ARG
17	CQ	51	GLU
17	CQ	52	CYS
17	CQ	57	VAL
17	CQ	60	ILE
17	CQ	75	VAL
17	CQ	80	LYS
18	CR	25	ILE
18	CR	44	THR
18	CR	49	LYS
18	CR	65	SER
18	CR	72	ARG
19	CS	5	LYS
19	CS	10	ILE
19	CS	52	ASN
19	CS	54	ARG
19	CS	55	GLN
20	CT	11	ILE
20	CT	26	MET
20	CT	30	PHE
20	CT	47	GLN
20	CT	53	MET
20	CT	68	LYS
20	CT	73	ARG
20	CT	82	ILE

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Mol	Chain	Res	Type
21	CU	4	LYS
21	CU	9	GLU
21	CU	18	PHE
21	CU	19	LYS
21	CU	27	VAL
21	CU	32	ARG
21	CU	39	LYS
21	CU	53	LYS
24	DC	2	VAL
24	DC	23	LEU
24	DC	35	LYS
24	DC	43	ASN
24	DC	57	HIS
24	DC	62	ARG
24	DC	80	LEU
24	DC	90	ILE
24	DC	102	TYR
24	DC	124	LYS
24	DC	136	VAL
24	DC	152	GLN
24	DC	153	LEU
24	DC	164	VAL
24	DC	171	VAL
24	DC	172	THR
24	DC	173	LEU
24	DC	183	VAL
24	DC	187	CYS
24	DC	190	THR
24	DC	191	LEU
24	DC	193	GLU
24	DC	194	VAL
24	DC	212	TRP
24	DC	220	ARG
24	DC	227	VAL
24	DC	228	ASP
24	DC	235	GLU
24	DC	249	VAL
24	DC	250	GLN
24	DC	251	THR
24	DC	256	THR
24	DC	260	LYS
24	DC	267	VAL

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Mol	Chain	Res	Type
25	DD	12	THR
25	DD	24	VAL
25	DD	28	GLU
25	DD	32	ASN
25	DD	33	ARG
25	DD	34	VAL
25	DD	35	THR
25	DD	38	LYS
25	DD	48	ILE
25	DD	55	LYS
25	DD	56	LYS
25	DD	58	ASN
25	DD	62	LYS
25	DD	70	LYS
25	DD	79	LEU
25	DD	84	LEU
25	DD	96	ILE
25	DD	106	LYS
25	DD	121	THR
25	DD	131	ASP
25	DD	138	LEU
25	DD	140	HIS
25	DD	141	ARG
25	DD	148	GLN
25	DD	150	GLN
25	DD	151	THR
25	DD	159	LYS
25	DD	168	GLU
25	DD	186	LEU
25	DD	189	VAL
25	DD	193	VAL
25	DD	202	ILE
25	DD	203	VAL
26	DE	53	THR
26	DE	57	LYS
26	DE	63	LYS
26	DE	67	ARG
26	DE	69	ARG
26	DE	77	ILE
26	DE	78	TRP
26	DE	108	ILE
26	DE	109	LEU

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Mol	Chain	Res	Type
26	DE	112	LEU
26	DE	117	ARG
26	DE	126	VAL
26	DE	139	LYS
26	DE	149	ILE
26	DE	157	LEU
26	DE	163	ASN
26	DE	164	LEU
26	DE	166	LYS
58	DF	8	LYS
58	DF	13	LYS
58	DF	14	LYS
58	DF	32	LYS
58	DF	48	LEU
58	DF	49	LEU
58	DF	76	PHE
58	DF	77	LYS
58	DF	94	ARG
58	DF	97	GLU
58	DF	110	ILE
58	DF	111	ARG
58	DF	113	PHE
58	DF	119	LYS
58	DF	133	GLU
58	DF	134	GLN
58	DF	135	ILE
58	DF	139	GLU
58	DF	142	TYR
58	DF	147	ARG
58	DF	148	VAL
58	DF	151	LEU
58	DF	155	ILE
58	DF	160	LYS
58	DF	169	LEU
58	DF	172	PHE
58	DF	177	ARG
28	DG	18	ILE
28	DG	19	ASN
28	DG	34	ARG
28	DG	35	THR
28	DG	40	VAL
28	DG	51	PHE

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Mol	Chain	Res	Type
28	DG	72	ASN
28	DG	84	LYS
28	DG	86	LEU
28	DG	93	TYR
28	DG	120	ILE
28	DG	132	LEU
28	DG	163	TYR
28	DG	166	GLU
28	DG	176	LYS
29	DH	15	LEU
29	DH	22	LYS
29	DH	27	ARG
29	DH	28	ASN
29	DH	42	LYS
29	DH	50	ARG
29	DH	62	LEU
29	DH	71	LYS
29	DH	76	GLU
29	DH	104	THR
29	DH	109	GLU
29	DH	144	VAL
30	DI	16	MET
30	DI	30	GLN
30	DI	58	ILE
30	DI	72	THR
30	DI	93	ASN
31	DJ	2	LYS
31	DJ	3	THR
31	DJ	18	VAL
31	DJ	25	LEU
31	DJ	36	LEU
31	DJ	47	HIS
31	DJ	52	ASP
31	DJ	54	ILE
31	DJ	57	LEU
31	DJ	72	LYS
31	DJ	81	ILE
31	DJ	92	MET
31	DJ	95	ARG
31	DJ	99	ARG
31	DJ	101	ILE
31	DJ	106	LYS

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Mol	Chain	Res	Type
31	DJ	129	GLU
31	DJ	139	VAL
32	DK	6	THR
32	DK	7	MET
32	DK	9	ASN
32	DK	10	VAL
32	DK	13	ASN
32	DK	24	VAL
32	DK	25	LEU
32	DK	39	ILE
32	DK	41	ILE
32	DK	47	ILE
32	DK	49	ARG
32	DK	54	LYS
32	DK	65	THR
32	DK	69	VAL
32	DK	77	ILE
32	DK	79	PHE
32	DK	95	ILE
32	DK	100	PHE
32	DK	105	ARG
32	DK	106	GLU
32	DK	107	LEU
32	DK	111	LYS
32	DK	114	LYS
32	DK	122	VAL
33	DL	3	LEU
33	DL	4	ASN
33	DL	6	LEU
33	DL	14	LYS
33	DL	47	ARG
33	DL	48	ARG
33	DL	69	ARG
33	DL	79	LEU
33	DL	82	LEU
33	DL	99	ASN
33	DL	103	ILE
33	DL	111	ILE
33	DL	112	LEU
33	DL	143	GLU
34	DM	8	LYS
34	DM	13	HIS

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Mol	Chain	Res	Type
34	DM	26	VAL
34	DM	38	ARG
34	DM	78	LEU
34	DM	96	ILE
34	DM	97	GLN
34	DM	105	MET
34	DM	115	GLU
34	DM	126	ILE
34	DM	133	LYS
35	DN	14	SER
35	DN	18	GLN
35	DN	21	PHE
35	DN	29	VAL
35	DN	33	ILE
35	DN	34	ILE
35	DN	40	LYS
35	DN	46	ARG
35	DN	53	THR
35	DN	62	ASN
35	DN	69	ARG
35	DN	75	ILE
35	DN	94	TYR
35	DN	95	THR
35	DN	97	ILE
35	DN	98	LEU
35	DN	107	ASN
35	DN	114	GLU
36	DO	17	LYS
36	DO	31	THR
36	DO	65	THR
36	DO	68	LYS
36	DO	90	VAL
36	DO	115	LEU
36	DO	116	GLN
37	DP	6	GLN
37	DP	7	LEU
37	DP	13	LYS
37	DP	28	LYS
37	DP	31	VAL
37	DP	50	ARG
37	DP	70	GLU
37	DP	79	VAL

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Mol	Chain	Res	Type
37	DP	83	ILE
37	DP	86	LYS
37	DP	95	LYS
37	DP	96	LEU
37	DP	101	GLU
38	DQ	3	VAL
38	DQ	12	ARG
38	DQ	15	LYS
38	DQ	18	LYS
38	DQ	21	LYS
38	DQ	47	ARG
38	DQ	49	ARG
38	DQ	54	ARG
38	DQ	57	ARG
38	DQ	63	ARG
38	DQ	69	ARG
38	DQ	79	ILE
38	DQ	93	ILE
39	DR	10	LYS
39	DR	13	ARG
39	DR	22	LEU
39	DR	37	GLU
39	DR	39	LEU
39	DR	48	LYS
39	DR	58	VAL
39	DR	64	VAL
39	DR	74	ILE
39	DR	80	ARG
39	DR	83	TYR
39	DR	86	GLN
39	DR	90	ARG
39	DR	93	PHE
40	DS	6	LYS
40	DS	23	LEU
40	DS	31	GLN
40	DS	45	VAL
40	DS	46	LEU
40	DS	49	LYS
40	DS	66	ILE
40	DS	70	LYS
40	DS	74	ILE
40	DS	76	VAL

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Mol	Chain	Res	Type
40	DS	84	ARG
40	DS	85	ILE
40	DS	86	MET
40	DS	88	ARG
40	DS	107	VAL
41	DT	9	LYS
41	DT	18	GLU
41	DT	24	MET
41	DT	48	GLN
41	DT	54	GLU
41	DT	61	LEU
41	DT	68	LYS
42	DU	13	LEU
42	DU	16	LYS
42	DU	20	LYS
42	DU	21	ARG
42	DU	40	LEU
42	DU	41	VAL
42	DU	42	LYS
42	DU	45	GLN
42	DU	61	GLU
42	DU	71	ILE
42	DU	85	ARG
42	DU	94	PHE
42	DU	95	PHE
43	DV	26	PHE
43	DV	40	ILE
43	DV	51	GLN
43	DV	53	LYS
43	DV	61	LEU
43	DV	65	VAL
43	DV	69	GLU
43	DV	70	ILE
43	DV	76	ASP
44	DW	18	LYS
44	DW	20	LEU
44	DW	22	VAL
44	DW	23	LYS
44	DW	25	PHE
44	DW	30	VAL
44	DW	35	ILE
44	DW	37	VAL

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Mol	Chain	Res	Type
44	DW	40	ARG
44	DW	58	LEU
44	DW	67	LYS
44	DW	68	PHE
44	DW	77	LYS
44	DW	80	SER
44	DW	81	ILE
45	DX	5	GLN
45	DX	6	VAL
45	DX	31	ASN
45	DX	46	VAL
45	DX	47	THR
45	DX	53	LYS
45	DX	63	ILE
46	DY	1	MET
46	DY	4	LYS
46	DY	28	LEU
46	DY	43	LEU
47	DZ	15	ARG
47	DZ	16	LEU
47	DZ	23	LEU
47	DZ	24	LEU
47	DZ	28	LEU
47	DZ	29	ARG
47	DZ	30	ARG
47	DZ	34	THR
47	DZ	53	MET
47	DZ	55	LYS
47	DZ	58	GLU
48	D0	3	GLN
48	D0	9	ARG
48	D0	22	THR
48	D0	27	LEU
48	D0	41	HIS
48	D0	42	ILE
49	D1	10	LEU
49	D1	20	TYR
49	D1	44	GLN
49	D1	47	ILE
49	D1	52	LYS
50	D2	26	ASN
50	D2	45	SER

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Mol	Chain	Res	Type
51	D3	12	ARG
51	D3	14	LYS
51	D3	27	ASN
51	D3	28	LEU
51	D3	29	ARG
51	D3	30	HIS
51	D3	41	ARG
51	D3	46	LYS
51	D3	49	VAL
51	D3	51	LYS
51	D3	61	LEU
52	D4	2	LYS
52	D4	9	LYS
52	D4	13	ASN
52	D4	15	LYS
52	D4	17	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (365) such sidechains are listed below:

Mol	Chain	Res	Type
2	AB	38	HIS
2	AB	57	ASN
2	AB	102	ASN
2	AB	108	GLN
2	AB	119	GLN
2	AB	167	HIS
2	AB	169	HIS
3	AC	5	HIS
3	AC	24	ASN
3	AC	68	HIS
3	AC	138	GLN
3	AC	139	ASN
4	AD	40	HIS
4	AD	53	GLN
4	AD	58	GLN
4	AD	70	GLN
4	AD	73	ASN
4	AD	84	ASN
4	AD	115	GLN
4	AD	119	HIS
4	AD	130	ASN
4	AD	163	GLN

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Mol	Chain	Res	Type
5	AE	11	GLN
5	AE	42	ASN
5	AE	69	ASN
5	AE	77	ASN
5	AE	121	ASN
6	AF	3	HIS
6	AF	11	HIS
6	AF	46	GLN
6	AF	52	ASN
6	AF	68	GLN
7	AG	85	GLN
7	AG	121	ASN
7	AG	147	ASN
8	AH	3	GLN
8	AH	17	GLN
8	AH	66	GLN
8	AH	117	GLN
9	AI	4	GLN
9	AI	74	GLN
9	AI	80	HIS
9	AI	125	GLN
10	AJ	20	GLN
10	AJ	35	GLN
10	AJ	56	HIS
10	AJ	64	GLN
11	AK	23	HIS
11	AK	108	ASN
12	AL	4	ASN
12	AL	45	ASN
12	AL	58	ASN
13	AM	7	ASN
14	AN	34	ASN
14	AN	42	ASN
14	AN	48	GLN
14	AN	61	ASN
15	AO	19	ASN
15	AO	36	ASN
15	AO	37	HIS
15	AO	45	HIS
15	AO	61	GLN
16	AP	9	HIS
16	AP	29	ASN

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Mol	Chain	Res	Type
16	AP	59	HIS
16	AP	63	GLN
17	AQ	8	GLN
17	AQ	44	HIS
17	AQ	46	HIS
17	AQ	49	ASN
18	AR	30	ASN
18	AR	73	HIS
19	AS	42	ASN
20	AT	12	GLN
20	AT	47	GLN
20	AT	54	GLN
20	AT	60	GLN
20	AT	74	HIS
20	AT	77	ASN
21	AU	8	ASN
24	BC	20	ASN
24	BC	43	ASN
24	BC	59	GLN
24	BC	89	ASN
24	BC	114	GLN
24	BC	141	HIS
24	BC	152	GLN
24	BC	199	HIS
24	BC	242	HIS
24	BC	250	GLN
25	BD	32	ASN
25	BD	42	ASN
25	BD	49	GLN
25	BD	58	ASN
25	BD	126	ASN
25	BD	130	GLN
26	BE	30	GLN
26	BE	62	GLN
26	BE	90	GLN
26	BE	97	ASN
26	BE	136	GLN
27	BF	4	HIS
27	BF	22	ASN
27	BF	26	GLN
27	BF	134	GLN
28	BG	21	GLN

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Mol	Chain	Res	Type
28	BG	72	ASN
28	BG	103	ASN
28	BG	142	GLN
29	BH	11	ASN
29	BH	18	GLN
29	BH	20	ASN
29	BH	28	ASN
29	BH	33	GLN
29	BH	43	ASN
29	BH	145	ASN
30	BI	5	GLN
30	BI	30	GLN
30	BI	110	GLN
31	BJ	40	HIS
31	BJ	58	ASN
31	BJ	76	HIS
31	BJ	77	HIS
31	BJ	80	HIS
31	BJ	128	ASN
32	BK	3	GLN
32	BK	88	ASN
32	BK	89	ASN
33	BL	4	ASN
33	BL	54	GLN
33	BL	93	ASN
33	BL	104	GLN
34	BM	88	ASN
35	BN	9	GLN
35	BN	11	ASN
35	BN	18	GLN
35	BN	23	ASN
35	BN	62	ASN
35	BN	107	ASN
36	BO	34	HIS
36	BO	38	GLN
36	BO	100	HIS
37	BP	9	GLN
37	BP	11	GLN
37	BP	74	GLN
38	BQ	13	HIS
38	BQ	51	GLN
38	BQ	65	ASN

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Mol	Chain	Res	Type
39	BR	12	HIS
39	BR	18	GLN
39	BR	43	ASN
39	BR	66	HIS
39	BR	87	GLN
40	BS	9	HIS
40	BS	15	GLN
40	BS	57	ASN
40	BS	61	ASN
41	BT	48	GLN
41	BT	70	HIS
41	BT	72	GLN
41	BT	91	GLN
42	BU	52	ASN
42	BU	65	GLN
42	BU	73	ASN
43	BV	5	ASN
43	BV	44	HIS
43	BV	51	GLN
43	BV	80	HIS
43	BV	88	HIS
44	BW	11	ASN
44	BW	39	GLN
44	BW	49	ASN
45	BX	5	GLN
46	BY	15	ASN
46	BY	20	ASN
46	BY	27	ASN
46	BY	36	GLN
46	BY	41	HIS
48	B0	3	GLN
48	B0	4	GLN
48	B0	5	ASN
48	B0	18	HIS
48	B0	41	HIS
50	B2	13	ASN
50	B2	16	HIS
50	B2	26	ASN
51	B3	27	ASN
52	B4	13	ASN
52	B4	33	HIS
52	B4	35	GLN

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Mol	Chain	Res	Type
52	B4	37	GLN
2	CB	18	GLN
2	CB	38	HIS
2	CB	108	GLN
2	CB	169	HIS
2	CB	176	ASN
3	CC	2	GLN
3	CC	7	ASN
3	CC	18	ASN
3	CC	24	ASN
3	CC	31	ASN
3	CC	68	HIS
3	CC	139	ASN
3	CC	184	ASN
4	CD	39	GLN
4	CD	70	GLN
4	CD	84	ASN
4	CD	99	ASN
4	CD	115	GLN
4	CD	119	HIS
4	CD	125	ASN
4	CD	151	GLN
4	CD	163	GLN
5	CE	11	GLN
5	CE	69	ASN
5	CE	76	ASN
5	CE	121	ASN
5	CE	131	ASN
5	CE	134	ASN
5	CE	145	ASN
6	CF	11	HIS
6	CF	55	HIS
6	CF	58	HIS
6	CF	63	ASN
6	CF	81	ASN
54	CG	67	ASN
54	CG	85	GLN
8	CH	3	GLN
8	CH	17	GLN
8	CH	37	ASN
8	CH	75	GLN
9	CI	3	ASN

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Mol	Chain	Res	Type
9	CI	4	GLN
9	CI	49	GLN
9	CI	74	GLN
9	CI	109	GLN
9	CI	125	GLN
10	CJ	35	GLN
10	CJ	70	HIS
11	CK	21	HIS
11	CK	27	ASN
12	CL	4	ASN
12	CL	5	GLN
12	CL	19	ASN
12	CL	72	ASN
12	CL	74	GLN
12	CL	111	GLN
55	CM	90	HIS
14	CN	65	GLN
15	CO	27	GLN
15	CO	34	GLN
15	CO	36	ASN
15	CO	45	HIS
15	CO	79	GLN
56	CP	18	GLN
56	CP	26	ASN
17	CQ	44	HIS
17	CQ	49	ASN
18	CR	73	HIS
19	CS	51	HIS
19	CS	52	ASN
19	CS	56	HIS
20	CT	12	GLN
20	CT	81	GLN
24	DC	43	ASN
24	DC	57	HIS
24	DC	59	GLN
24	DC	89	ASN
24	DC	116	GLN
24	DC	133	ASN
24	DC	141	HIS
24	DC	162	GLN
24	DC	242	HIS
25	DD	32	ASN

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Mol	Chain	Res	Type
25	DD	36	GLN
25	DD	49	GLN
25	DD	58	ASN
25	DD	67	HIS
25	DD	136	ASN
25	DD	150	GLN
25	DD	164	GLN
26	DE	29	HIS
26	DE	30	GLN
26	DE	62	GLN
58	DF	126	ASN
28	DG	19	ASN
28	DG	37	ASN
28	DG	44	HIS
28	DG	138	GLN
29	DH	2	GLN
29	DH	28	ASN
29	DH	66	ASN
29	DH	119	ASN
30	DI	93	ASN
30	DI	106	GLN
31	DJ	40	HIS
31	DJ	138	GLN
32	DK	3	GLN
32	DK	9	ASN
32	DK	13	ASN
32	DK	89	ASN
33	DL	4	ASN
33	DL	54	GLN
34	DM	3	GLN
34	DM	13	HIS
35	DN	3	HIS
35	DN	11	ASN
35	DN	16	HIS
35	DN	18	GLN
35	DN	31	HIS
35	DN	107	ASN
36	DO	29	HIS
36	DO	34	HIS
36	DO	38	GLN
36	DO	104	GLN
37	DP	2	ASN

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Mol	Chain	Res	Type
37	DP	6	GLN
37	DP	9	GLN
37	DP	65	ASN
37	DP	76	HIS
37	DP	114	ASN
38	DQ	19	GLN
38	DQ	71	ASN
39	DR	6	GLN
39	DR	12	HIS
39	DR	43	ASN
39	DR	66	HIS
39	DR	82	HIS
39	DR	86	GLN
39	DR	87	GLN
40	DS	31	GLN
40	DS	57	ASN
41	DT	15	HIS
41	DT	48	GLN
41	DT	70	HIS
41	DT	92	ASN
42	DU	44	HIS
42	DU	45	GLN
42	DU	52	ASN
42	DU	53	GLN
43	DV	24	ASN
43	DV	51	GLN
43	DV	80	HIS
43	DV	87	GLN
43	DV	88	HIS
44	DW	11	ASN
44	DW	56	HIS
45	DX	15	ASN
45	DX	22	ASN
45	DX	31	ASN
46	DY	15	ASN
46	DY	20	ASN
46	DY	41	HIS
46	DY	58	ASN
47	DZ	19	HIS
48	D0	5	ASN
48	D0	37	HIS
48	D0	41	HIS

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Mol	Chain	Res	Type
50	D2	6	GLN
50	D2	16	HIS
51	D3	25	HIS
51	D3	27	ASN
51	D3	30	HIS
51	D3	42	HIS
52	D4	37	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1532/1533 (99%)	507 (33%)	233 (15%)
22	BA	2850/2903 (98%)	980 (34%)	473 (16%)
22	DA	2839/2903 (97%)	1097 (38%)	506 (17%)
23	BB	117/118 (99%)	36 (30%)	18 (15%)
53	CA	1529/1530 (99%)	561 (36%)	236 (15%)
57	DB	116/117 (99%)	39 (33%)	15 (12%)
All	All	8983/9104 (98%)	3220 (35%)	1481 (16%)

All (3220) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	5	U
1	AA	6	G
1	AA	7	A
1	AA	8	A
1	AA	9	G
1	AA	13	U
1	AA	14	U
1	AA	15	G
1	AA	22	G
1	AA	31	G
1	AA	32	A
1	AA	33	A
1	AA	39	G
1	AA	47	C
1	AA	48	C
1	AA	50	A
1	AA	51	A
1	AA	52	C
1	AA	53	A

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Mol	Chain	Res	Type
1	AA	61	G
1	AA	62	U
1	AA	65	A
1	AA	66	A
1	AA	67	C
1	AA	70	U
1	AA	71	A
1	AA	73	C
1	AA	74	A
1	AA	75	G
1	AA	76	G
1	AA	77	A
1	AA	79	G
1	AA	82	G
1	AA	83	C
1	AA	85	U
1	AA	86	G
1	AA	87	C
1	AA	88	U
1	AA	89	U
1	AA	90	C
1	AA	91	U
1	AA	92	U
1	AA	93	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	98	A
1	AA	109	A
1	AA	110	C
1	AA	111	G
1	AA	116	A
1	AA	117	G
1	AA	119	A
1	AA	120	A
1	AA	121	U
1	AA	122	G
1	AA	127	G
1	AA	129	A
1	AA	130	A
1	AA	131	A
1	AA	132	C

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Mol	Chain	Res	Type
1	AA	141	G
1	AA	143	A
1	AA	156	C
1	AA	159	G
1	AA	163	C
1	AA	164	G
1	AA	174	A
1	AA	175	C
1	AA	176	C
1	AA	177	G
1	AA	181	A
1	AA	182	A
1	AA	183	C
1	AA	184	G
1	AA	185	U
1	AA	198	G
1	AA	199	A
1	AA	200	G
1	AA	202	G
1	AA	205	A
1	AA	207	C
1	AA	209	U
1	AA	210	C
1	AA	211	G
1	AA	212	G
1	AA	214	C
1	AA	219	U
1	AA	232	G
1	AA	240	G
1	AA	243	A
1	AA	244	U
1	AA	245	U
1	AA	246	A
1	AA	247	G
1	AA	248	C
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	253	A
1	AA	258	G
1	AA	266	G
1	AA	267	C

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Mol	Chain	Res	Type
1	AA	268	U
1	AA	269	C
1	AA	273	U
1	AA	274	A
1	AA	275	G
1	AA	276	G
1	AA	279	A
1	AA	280	C
1	AA	285	C
1	AA	289	G
1	AA	294	U
1	AA	305	G
1	AA	306	A
1	AA	307	C
1	AA	315	A
1	AA	316	C
1	AA	317	U
1	AA	320	A
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	330	C
1	AA	331	G
1	AA	332	G
1	AA	344	A
1	AA	345	C
1	AA	346	G
1	AA	347	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	356	A
1	AA	367	U
1	AA	368	U
1	AA	369	G
1	AA	370	C
1	AA	373	A
1	AA	384	G
1	AA	388	G
1	AA	389	A
1	AA	392	C
1	AA	398	U

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Mol	Chain	Res	Type
1	AA	406	G
1	AA	411	A
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	415	A
1	AA	421	U
1	AA	422	C
1	AA	423	G
1	AA	424	G
1	AA	428	G
1	AA	429	U
1	AA	430	A
1	AA	431	A
1	AA	438	U
1	AA	439	U
1	AA	451	A
1	AA	452	A
1	AA	453	G
1	AA	458	U
1	AA	459	A
1	AA	461	A
1	AA	462	G
1	AA	463	U
1	AA	466	A
1	AA	467	U
1	AA	468	A
1	AA	469	C
1	AA	478	A
1	AA	481	G
1	AA	482	A
1	AA	484	G
1	AA	485	U
1	AA	486	U
1	AA	487	A
1	AA	488	C
1	AA	496	A
1	AA	497	G
1	AA	498	A
1	AA	499	A
1	AA	500	G
1	AA	501	C

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Mol	Chain	Res	Type
1	AA	508	U
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	512	U
1	AA	513	C
1	AA	517	G
1	AA	518	C
1	AA	519	C
1	AA	520	A
1	AA	527	G
1	AA	532	A
1	AA	533	A
1	AA	534	U
1	AA	535	A
1	AA	536	C
1	AA	537	G
1	AA	546	A
1	AA	548	G
1	AA	549	C
1	AA	556	C
1	AA	559	A
1	AA	560	A
1	AA	562	U
1	AA	563	A
1	AA	564	C
1	AA	565	U
1	AA	566	G
1	AA	567	G
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	C
1	AA	577	G
1	AA	579	A
1	AA	588	G
1	AA	595	A
1	AA	596	A
1	AA	597	G
1	AA	642	A
1	AA	643	C

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Mol	Chain	Res	Type
1	AA	650	G
1	AA	653	U
1	AA	654	G
1	AA	655	A
1	AA	665	A
1	AA	682	G
1	AA	688	G
1	AA	689	C
1	AA	698	G
1	AA	701	U
1	AA	702	A
1	AA	703	G
1	AA	717	U
1	AA	718	A
1	AA	719	C
1	AA	721	G
1	AA	722	G
1	AA	723	U
1	AA	724	G
1	AA	725	G
1	AA	731	G
1	AA	748	G
1	AA	753	A
1	AA	754	C
1	AA	755	G
1	AA	756	C
1	AA	776	G
1	AA	777	A
1	AA	787	A
1	AA	792	A
1	AA	793	U
1	AA	794	A
1	AA	795	C
1	AA	798	U
1	AA	802	A
1	AA	812	G
1	AA	813	U
1	AA	814	A
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	818	G

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Mol	Chain	Res	Type
1	AA	821	G
1	AA	822	U
1	AA	828	U
1	AA	829	G
1	AA	832	G
1	AA	841	C
1	AA	843	U
1	AA	845	A
1	AA	846	G
1	AA	849	G
1	AA	859	G
1	AA	861	G
1	AA	870	U
1	AA	871	U
1	AA	874	G
1	AA	875	U
1	AA	876	C
1	AA	884	U
1	AA	885	G
1	AA	886	G
1	AA	889	A
1	AA	890	G
1	AA	910	C
1	AA	914	A
1	AA	915	A
1	AA	926	G
1	AA	927	G
1	AA	934	C
1	AA	935	A
1	AA	936	C
1	AA	960	U
1	AA	961	U
1	AA	962	C
1	AA	966	G
1	AA	967	C
1	AA	968	A
1	AA	969	A
1	AA	970	C
1	AA	971	G
1	AA	972	C
1	AA	973	G
1	AA	974	A

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Mol	Chain	Res	Type
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	982	U
1	AA	983	A
1	AA	984	C
1	AA	985	C
1	AA	987	G
1	AA	989	U
1	AA	992	U
1	AA	993	G
1	AA	994	A
1	AA	995	C
1	AA	1003	G
1	AA	1004	A
1	AA	1008	U
1	AA	1017	U
1	AA	1018	G
1	AA	1022	A
1	AA	1029	U
1	AA	1030	U
1	AA	1031	C
1	AA	1032	G
1	AA	1033	G
1	AA	1034	G
1	AA	1037	C
1	AA	1050	G
1	AA	1051	C
1	AA	1052	U
1	AA	1053	G
1	AA	1054	C
1	AA	1055	A
1	AA	1056	U
1	AA	1064	G
1	AA	1065	U
1	AA	1066	C
1	AA	1068	G
1	AA	1069	C
1	AA	1085	U
1	AA	1086	U
1	AA	1087	G
1	AA	1088	G

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Mol	Chain	Res	Type
1	AA	1094	G
1	AA	1101	A
1	AA	1102	A
1	AA	1103	C
1	AA	1104	G
1	AA	1113	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1127	G
1	AA	1128	C
1	AA	1130	A
1	AA	1131	G
1	AA	1133	G
1	AA	1135	U
1	AA	1137	C
1	AA	1138	G
1	AA	1140	C
1	AA	1141	C
1	AA	1142	G
1	AA	1144	G
1	AA	1145	A
1	AA	1146	A
1	AA	1152	A
1	AA	1153	G
1	AA	1158	C
1	AA	1159	U
1	AA	1160	G
1	AA	1161	C
1	AA	1162	C
1	AA	1163	A
1	AA	1167	A
1	AA	1168	U
1	AA	1169	A
1	AA	1170	A
1	AA	1181	G
1	AA	1182	G
1	AA	1183	U
1	AA	1184	G
1	AA	1185	G
1	AA	1190	G
1	AA	1191	A

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Mol	Chain	Res	Type
1	AA	1192	C
1	AA	1193	G
1	AA	1196	A
1	AA	1197	A
1	AA	1198	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	U
1	AA	1203	C
1	AA	1212	U
1	AA	1213	A
1	AA	1215	G
1	AA	1216	A
1	AA	1224	U
1	AA	1225	A
1	AA	1226	C
1	AA	1227	A
1	AA	1228	C
1	AA	1229	A
1	AA	1230	C
1	AA	1238	A
1	AA	1239	A
1	AA	1240	U
1	AA	1241	G
1	AA	1242	G
1	AA	1256	A
1	AA	1257	A
1	AA	1258	G
1	AA	1259	C
1	AA	1275	A
1	AA	1278	G
1	AA	1279	G
1	AA	1280	A
1	AA	1282	C
1	AA	1283	U
1	AA	1285	A
1	AA	1286	U
1	AA	1287	A
1	AA	1293	C
1	AA	1297	G
1	AA	1298	U
1	AA	1299	A

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Mol	Chain	Res	Type
1	AA	1303	C
1	AA	1304	G
1	AA	1305	G
1	AA	1308	U
1	AA	1317	C
1	AA	1318	A
1	AA	1320	C
1	AA	1321	U
1	AA	1322	C
1	AA	1323	G
1	AA	1324	A
1	AA	1325	C
1	AA	1332	A
1	AA	1333	A
1	AA	1337	G
1	AA	1338	G
1	AA	1345	U
1	AA	1346	A
1	AA	1348	U
1	AA	1349	A
1	AA	1350	A
1	AA	1353	G
1	AA	1362	A
1	AA	1364	U
1	AA	1365	G
1	AA	1366	C
1	AA	1370	G
1	AA	1380	U
1	AA	1381	U
1	AA	1382	C
1	AA	1395	C
1	AA	1396	A
1	AA	1398	A
1	AA	1399	C
1	AA	1400	C
1	AA	1406	U
1	AA	1411	C
1	AA	1433	A
1	AA	1434	A
1	AA	1441	A
1	AA	1446	A
1	AA	1448	C

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Mol	Chain	Res	Type
1	AA	1452	C
1	AA	1453	G
1	AA	1454	G
1	AA	1455	G
1	AA	1469	C
1	AA	1470	U
1	AA	1476	A
1	AA	1480	A
1	AA	1492	A
1	AA	1493	A
1	AA	1494	G
1	AA	1497	G
1	AA	1499	A
1	AA	1500	A
1	AA	1502	A
1	AA	1503	A
1	AA	1505	G
1	AA	1506	U
1	AA	1507	A
1	AA	1508	A
1	AA	1517	G
1	AA	1528	U
1	AA	1529	G
1	AA	1530	G
1	AA	1531	A
1	AA	1532	U
22	BA	10	A
22	BA	12	U
22	BA	13	A
22	BA	14	A
22	BA	15	G
22	BA	27	G
22	BA	28	A
22	BA	33	C
22	BA	34	U
22	BA	35	G
22	BA	36	G
22	BA	42	A
22	BA	43	G
22	BA	46	G
22	BA	49	A
22	BA	50	U

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Mol	Chain	Res	Type
22	BA	52	A
22	BA	53	A
22	BA	61	C
22	BA	63	A
22	BA	64	A
22	BA	70	G
22	BA	71	A
22	BA	73	A
22	BA	74	A
22	BA	75	G
22	BA	76	C
22	BA	80	G
22	BA	82	U
22	BA	84	A
22	BA	85	G
22	BA	86	G
22	BA	92	U
22	BA	93	G
22	BA	98	G
22	BA	101	A
22	BA	116	C
22	BA	118	A
22	BA	119	A
22	BA	120	U
22	BA	121	G
22	BA	122	G
22	BA	126	A
22	BA	127	A
22	BA	128	C
22	BA	131	A
22	BA	135	U
22	BA	136	G
22	BA	137	U
22	BA	138	U
22	BA	139	U
22	BA	140	C
22	BA	141	G
22	BA	142	A
22	BA	143	C
22	BA	144	A
22	BA	149	A
22	BA	162	U

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Mol	Chain	Res	Type
22	BA	163	C
22	BA	164	C
22	BA	165	A
22	BA	166	U
22	BA	177	G
22	BA	178	G
22	BA	188	G
22	BA	193	U
22	BA	196	A
22	BA	197	A
22	BA	199	A
22	BA	200	U
22	BA	201	C
22	BA	204	A
22	BA	205	G
22	BA	206	U
22	BA	207	A
22	BA	216	A
22	BA	221	A
22	BA	222	A
22	BA	223	A
22	BA	224	U
22	BA	227	A
22	BA	228	C
22	BA	229	C
22	BA	230	G
22	BA	231	A
22	BA	233	A
22	BA	241	A
22	BA	242	G
22	BA	243	U
22	BA	244	A
22	BA	248	G
22	BA	249	C
22	BA	250	G
22	BA	255	A
22	BA	264	C
22	BA	265	A
22	BA	266	G
22	BA	267	C
22	BA	268	C
22	BA	271	G

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Mol	Chain	Res	Type
22	BA	272	A
22	BA	273	G
22	BA	274	C
22	BA	276	U
22	BA	278	A
22	BA	281	C
22	BA	285	G
22	BA	291	G
22	BA	301	G
22	BA	302	C
22	BA	303	G
22	BA	310	A
22	BA	311	A
22	BA	312	G
22	BA	313	G
22	BA	322	A
22	BA	329	G
22	BA	330	A
22	BA	333	G
22	BA	334	C
22	BA	345	A
22	BA	346	A
22	BA	347	A
22	BA	349	U
22	BA	353	C
22	BA	359	G
22	BA	361	G
22	BA	362	A
22	BA	371	A
22	BA	372	G
22	BA	373	U
22	BA	374	A
22	BA	383	C
22	BA	386	G
22	BA	387	U
22	BA	388	G
22	BA	389	G
22	BA	391	A
22	BA	392	U
22	BA	395	U
22	BA	396	G
22	BA	404	A

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Mol	Chain	Res	Type
22	BA	405	U
22	BA	411	G
22	BA	412	A
22	BA	413	C
22	BA	422	A
22	BA	423	A
22	BA	424	G
22	BA	435	C
22	BA	436	C
22	BA	443	A
22	BA	449	A
22	BA	451	U
22	BA	454	A
22	BA	455	C
22	BA	457	A
22	BA	459	U
22	BA	460	A
22	BA	467	G
22	BA	475	C
22	BA	476	G
22	BA	477	A
22	BA	479	A
22	BA	480	A
22	BA	481	G
22	BA	482	A
22	BA	483	A
22	BA	489	G
22	BA	490	C
22	BA	491	G
22	BA	504	A
22	BA	505	A
22	BA	506	G
22	BA	507	A
22	BA	508	A
22	BA	509	C
22	BA	510	C
22	BA	512	G
22	BA	513	A
22	BA	514	A
22	BA	528	A
22	BA	529	A
22	BA	530	G

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Mol	Chain	Res	Type
22	BA	531	C
22	BA	532	A
22	BA	533	G
22	BA	534	U
22	BA	537	G
22	BA	538	A
22	BA	544	C
22	BA	546	U
22	BA	547	A
22	BA	548	G
22	BA	549	G
22	BA	550	C
22	BA	556	A
22	BA	560	C
22	BA	563	A
22	BA	571	U
22	BA	572	A
22	BA	573	U
22	BA	575	A
22	BA	576	U
22	BA	586	A
22	BA	587	C
22	BA	588	U
22	BA	589	U
22	BA	603	A
22	BA	604	G
22	BA	605	G
22	BA	613	A
22	BA	614	A
22	BA	615	U
22	BA	616	A
22	BA	617	G
22	BA	618	G
22	BA	621	A
22	BA	622	G
22	BA	627	A
22	BA	628	G
22	BA	631	A
22	BA	634	C
22	BA	637	A
22	BA	638	G
22	BA	639	U

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Mol	Chain	Res	Type
22	BA	645	C
22	BA	646	U
22	BA	647	G
22	BA	648	G
22	BA	653	U
22	BA	654	A
22	BA	655	A
22	BA	656	G
22	BA	666	A
22	BA	669	G
22	BA	670	A
22	BA	671	C
22	BA	685	A
22	BA	686	U
22	BA	687	C
22	BA	688	U
22	BA	705	A
22	BA	706	A
22	BA	714	U
22	BA	717	C
22	BA	726	G
22	BA	727	A
22	BA	728	G
22	BA	729	G
22	BA	730	A
22	BA	738	G
22	BA	740	C
22	BA	746	U
22	BA	747	U
22	BA	748	G
22	BA	752	A
22	BA	753	A
22	BA	763	G
22	BA	764	A
22	BA	765	C
22	BA	766	U
22	BA	775	G
22	BA	776	G
22	BA	777	G
22	BA	782	A
22	BA	783	A
22	BA	784	G

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Mol	Chain	Res	Type
22	BA	785	G
22	BA	788	A
22	BA	789	A
22	BA	791	C
22	BA	792	A
22	BA	800	A
22	BA	801	G
22	BA	802	A
22	BA	803	U
22	BA	805	G
22	BA	806	C
22	BA	807	U
22	BA	811	U
22	BA	812	C
22	BA	819	A
22	BA	827	U
22	BA	828	U
22	BA	829	A
22	BA	830	G
22	BA	845	A
22	BA	846	U
22	BA	847	U
22	BA	858	G
22	BA	859	G
22	BA	860	U
22	BA	861	A
22	BA	865	C
22	BA	866	A
22	BA	868	U
22	BA	876	C
22	BA	878	A
22	BA	896	A
22	BA	897	C
22	BA	901	C
22	BA	910	A
22	BA	913	U
22	BA	914	G
22	BA	915	C
22	BA	916	G
22	BA	919	U
22	BA	932	U
22	BA	933	A

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Mol	Chain	Res	Type
22	BA	934	U
22	BA	941	A
22	BA	945	A
22	BA	946	C
22	BA	947	A
22	BA	958	U
22	BA	959	A
22	BA	961	C
22	BA	962	G
22	BA	963	U
22	BA	968	C
22	BA	973	A
22	BA	974	G
22	BA	983	A
22	BA	984	A
22	BA	985	C
22	BA	986	C
22	BA	989	G
22	BA	990	A
22	BA	991	C
22	BA	995	C
22	BA	996	A
22	BA	997	G
22	BA	1004	U
22	BA	1005	C
22	BA	1008	A
22	BA	1009	A
22	BA	1010	A
22	BA	1011	G
22	BA	1012	U
22	BA	1013	C
22	BA	1014	A
22	BA	1021	A
22	BA	1022	G
22	BA	1023	U
22	BA	1024	G
22	BA	1025	G
22	BA	1026	G
22	BA	1027	A
22	BA	1033	U
22	BA	1034	G
22	BA	1040	A

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Mol	Chain	Res	Type
22	BA	1044	C
22	BA	1045	C
22	BA	1046	A
22	BA	1047	G
22	BA	1057	A
22	BA	1060	U
22	BA	1061	U
22	BA	1062	G
22	BA	1063	G
22	BA	1064	C
22	BA	1065	U
22	BA	1066	U
22	BA	1070	A
22	BA	1071	G
22	BA	1072	C
22	BA	1073	A
22	BA	1074	G
22	BA	1078	U
22	BA	1083	U
22	BA	1084	A
22	BA	1088	A
22	BA	1098	A
22	BA	1104	C
22	BA	1111	A
22	BA	1112	G
22	BA	1113	U
22	BA	1115	G
22	BA	1126	A
22	BA	1127	A
22	BA	1129	A
22	BA	1130	U
22	BA	1132	U
22	BA	1133	A
22	BA	1135	C
22	BA	1136	G
22	BA	1139	G
22	BA	1142	A
22	BA	1144	A
22	BA	1145	C
22	BA	1151	A
22	BA	1152	C
22	BA	1154	G

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Mol	Chain	Res	Type
22	BA	1155	A
22	BA	1156	A
22	BA	1157	G
22	BA	1158	C
22	BA	1167	C
22	BA	1168	G
22	BA	1170	C
22	BA	1172	C
22	BA	1175	A
22	BA	1176	U
22	BA	1180	U
22	BA	1181	U
22	BA	1182	G
22	BA	1185	G
22	BA	1186	G
22	BA	1204	A
22	BA	1205	A
22	BA	1206	G
22	BA	1207	C
22	BA	1210	G
22	BA	1211	C
22	BA	1213	A
22	BA	1214	A
22	BA	1218	G
22	BA	1236	G
22	BA	1237	A
22	BA	1238	G
22	BA	1247	A
22	BA	1248	G
22	BA	1249	U
22	BA	1250	G
22	BA	1251	C
22	BA	1253	A
22	BA	1255	U
22	BA	1256	G
22	BA	1266	G
22	BA	1267	U
22	BA	1268	A
22	BA	1271	G
22	BA	1272	A
22	BA	1273	U
22	BA	1274	A

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Mol	Chain	Res	Type
22	BA	1275	A
22	BA	1276	A
22	BA	1277	G
22	BA	1287	A
22	BA	1288	G
22	BA	1289	C
22	BA	1290	C
22	BA	1293	C
22	BA	1300	G
22	BA	1301	A
22	BA	1303	G
22	BA	1305	C
22	BA	1320	C
22	BA	1321	A
22	BA	1322	A
22	BA	1324	G
22	BA	1325	U
22	BA	1326	U
22	BA	1327	A
22	BA	1329	U
22	BA	1330	C
22	BA	1331	G
22	BA	1332	G
22	BA	1333	G
22	BA	1336	A
22	BA	1341	G
22	BA	1343	G
22	BA	1344	U
22	BA	1349	C
22	BA	1352	U
22	BA	1359	A
22	BA	1363	C
22	BA	1365	A
22	BA	1368	G
22	BA	1379	U
22	BA	1380	G
22	BA	1383	A
22	BA	1385	A
22	BA	1386	C
22	BA	1387	A
22	BA	1395	A
22	BA	1397	U

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Mol	Chain	Res	Type
22	BA	1398	C
22	BA	1399	C
22	BA	1403	A
22	BA	1415	U
22	BA	1416	G
22	BA	1417	C
22	BA	1418	G
22	BA	1419	A
22	BA	1420	A
22	BA	1427	A
22	BA	1428	C
22	BA	1429	G
22	BA	1430	G
22	BA	1434	A
22	BA	1437	C
22	BA	1440	U
22	BA	1451	C
22	BA	1452	G
22	BA	1453	A
22	BA	1455	G
22	BA	1456	G
22	BA	1458	U
22	BA	1459	G
22	BA	1460	U
22	BA	1461	C
22	BA	1462	C
22	BA	1467	U
22	BA	1475	G
22	BA	1476	U
22	BA	1477	A
22	BA	1482	G
22	BA	1483	G
22	BA	1490	A
22	BA	1491	G
22	BA	1492	G
22	BA	1494	A
22	BA	1495	A
22	BA	1497	U
22	BA	1498	C
22	BA	1499	C
22	BA	1500	G
22	BA	1504	A

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Mol	Chain	Res	Type
22	BA	1508	A
22	BA	1509	A
22	BA	1510	G
22	BA	1511	G
22	BA	1515	A
22	BA	1522	A
22	BA	1523	U
22	BA	1533	C
22	BA	1534	U
22	BA	1535	A
22	BA	1536	C
22	BA	1537	G
22	BA	1538	G
22	BA	1539	U
22	BA	1555	G
22	BA	1556	C
22	BA	1558	C
22	BA	1559	U
22	BA	1560	G
22	BA	1561	C
22	BA	1565	C
22	BA	1566	A
22	BA	1568	G
22	BA	1569	A
22	BA	1578	U
22	BA	1581	G
22	BA	1583	A
22	BA	1584	U
22	BA	1585	C
22	BA	1602	U
22	BA	1603	A
22	BA	1606	C
22	BA	1607	C
22	BA	1608	A
22	BA	1610	A
22	BA	1611	C
22	BA	1612	C
22	BA	1615	C
22	BA	1616	A
22	BA	1627	G
22	BA	1634	A
22	BA	1635	A

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Mol	Chain	Res	Type
22	BA	1647	U
22	BA	1648	U
22	BA	1649	G
22	BA	1652	A
22	BA	1653	G
22	BA	1654	A
22	BA	1655	A
22	BA	1674	G
22	BA	1675	C
22	BA	1682	G
22	BA	1683	U
22	BA	1693	U
22	BA	1694	C
22	BA	1695	G
22	BA	1696	G
22	BA	1697	G
22	BA	1698	A
22	BA	1699	G
22	BA	1700	A
22	BA	1701	A
22	BA	1703	G
22	BA	1707	G
22	BA	1708	C
22	BA	1713	A
22	BA	1714	U
22	BA	1715	G
22	BA	1716	U
22	BA	1717	A
22	BA	1723	G
22	BA	1729	U
22	BA	1730	C
22	BA	1732	C
22	BA	1733	G
22	BA	1734	G
22	BA	1735	A
22	BA	1736	U
22	BA	1737	G
22	BA	1738	G
22	BA	1739	A
22	BA	1740	G
22	BA	1744	A
22	BA	1758	U

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Mol	Chain	Res	Type
22	BA	1759	A
22	BA	1760	C
22	BA	1764	C
22	BA	1773	A
22	BA	1776	G
22	BA	1780	A
22	BA	1782	U
22	BA	1783	A
22	BA	1784	A
22	BA	1785	A
22	BA	1786	A
22	BA	1787	A
22	BA	1788	C
22	BA	1799	G
22	BA	1800	C
22	BA	1801	A
22	BA	1802	A
22	BA	1803	A
22	BA	1808	A
22	BA	1809	A
22	BA	1810	A
22	BA	1815	A
22	BA	1816	C
22	BA	1817	G
22	BA	1818	U
22	BA	1819	A
22	BA	1821	A
22	BA	1822	C
22	BA	1827	U
22	BA	1828	G
22	BA	1829	A
22	BA	1838	C
22	BA	1839	G
22	BA	1840	G
22	BA	1848	A
22	BA	1849	G
22	BA	1857	G
22	BA	1858	A
22	BA	1859	U
22	BA	1865	U
22	BA	1866	A
22	BA	1867	G

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Mol	Chain	Res	Type
22	BA	1869	G
22	BA	1871	A
22	BA	1872	A
22	BA	1873	G
22	BA	1876	A
22	BA	1884	G
22	BA	1885	A
22	BA	1886	U
22	BA	1900	A
22	BA	1901	A
22	BA	1906	G
22	BA	1913	A
22	BA	1914	C
22	BA	1918	A
22	BA	1919	A
22	BA	1920	C
22	BA	1927	A
22	BA	1930	G
22	BA	1931	U
22	BA	1932	A
22	BA	1937	A
22	BA	1938	A
22	BA	1940	U
22	BA	1941	C
22	BA	1942	C
22	BA	1943	U
22	BA	1944	U
22	BA	1945	G
22	BA	1946	U
22	BA	1951	U
22	BA	1954	G
22	BA	1955	U
22	BA	1956	U
22	BA	1957	C
22	BA	1963	U
22	BA	1964	G
22	BA	1965	C
22	BA	1966	A
22	BA	1967	C
22	BA	1968	G
22	BA	1970	A
22	BA	1971	U

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Mol	Chain	Res	Type
22	BA	1972	G
22	BA	1979	U
22	BA	1991	U
22	BA	1992	G
22	BA	1993	U
22	BA	1994	C
22	BA	1996	C
22	BA	1997	C
22	BA	1998	A
22	BA	2006	C
22	BA	2018	G
22	BA	2022	U
22	BA	2023	C
22	BA	2024	G
22	BA	2030	A
22	BA	2031	A
22	BA	2032	G
22	BA	2033	A
22	BA	2035	G
22	BA	2036	C
22	BA	2037	A
22	BA	2043	C
22	BA	2049	G
22	BA	2051	A
22	BA	2052	A
22	BA	2055	C
22	BA	2056	G
22	BA	2060	A
22	BA	2061	G
22	BA	2062	A
22	BA	2063	C
22	BA	2064	C
22	BA	2066	C
22	BA	2068	U
22	BA	2069	G
22	BA	2072	C
22	BA	2078	C
22	BA	2093	G
22	BA	2094	A
22	BA	2096	C
22	BA	2104	C
22	BA	2106	U

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Mol	Chain	Res	Type
22	BA	2107	G
22	BA	2109	U
22	BA	2110	G
22	BA	2134	A
22	BA	2135	A
22	BA	2136	G
22	BA	2137	U
22	BA	2138	G
22	BA	2140	G
22	BA	2143	C
22	BA	2144	G
22	BA	2145	C
22	BA	2146	C
22	BA	2147	A
22	BA	2148	G
22	BA	2149	U
22	BA	2150	C
22	BA	2151	U
22	BA	2155	U
22	BA	2156	G
22	BA	2180	U
22	BA	2181	U
22	BA	2183	A
22	BA	2184	A
22	BA	2185	U
22	BA	2187	U
22	BA	2194	U
22	BA	2197	U
22	BA	2198	A
22	BA	2199	A
22	BA	2200	C
22	BA	2203	U
22	BA	2204	G
22	BA	2210	U
22	BA	2211	A
22	BA	2212	A
22	BA	2214	C
22	BA	2215	C
22	BA	2225	A
22	BA	2226	C
22	BA	2227	A
22	BA	2233	U

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Mol	Chain	Res	Type
22	BA	2238	G
22	BA	2239	G
22	BA	2240	U
22	BA	2243	U
22	BA	2249	U
22	BA	2250	G
22	BA	2258	C
22	BA	2259	U
22	BA	2266	A
22	BA	2267	A
22	BA	2268	A
22	BA	2269	G
22	BA	2275	C
22	BA	2276	G
22	BA	2277	G
22	BA	2278	A
22	BA	2283	C
22	BA	2284	A
22	BA	2287	A
22	BA	2288	A
22	BA	2297	A
22	BA	2298	A
22	BA	2305	U
22	BA	2307	G
22	BA	2308	G
22	BA	2309	A
22	BA	2310	C
22	BA	2312	U
22	BA	2320	U
22	BA	2321	U
22	BA	2322	A
22	BA	2325	G
22	BA	2326	C
22	BA	2327	A
22	BA	2333	A
22	BA	2334	U
22	BA	2335	A
22	BA	2336	A
22	BA	2337	G
22	BA	2338	C
22	BA	2344	U
22	BA	2345	G

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Mol	Chain	Res	Type
22	BA	2347	C
22	BA	2348	U
22	BA	2350	C
22	BA	2358	A
22	BA	2361	G
22	BA	2382	G
22	BA	2383	G
22	BA	2384	U
22	BA	2385	C
22	BA	2391	G
22	BA	2392	A
22	BA	2393	U
22	BA	2402	U
22	BA	2403	C
22	BA	2406	A
22	BA	2407	A
22	BA	2408	U
22	BA	2423	U
22	BA	2424	C
22	BA	2425	A
22	BA	2426	A
22	BA	2427	C
22	BA	2428	G
22	BA	2429	G
22	BA	2430	A
22	BA	2431	U
22	BA	2432	A
22	BA	2435	A
22	BA	2439	A
22	BA	2440	C
22	BA	2441	U
22	BA	2447	G
22	BA	2448	A
22	BA	2450	A
22	BA	2451	A
22	BA	2458	G
22	BA	2459	A
22	BA	2460	U
22	BA	2469	A
22	BA	2470	G
22	BA	2476	A
22	BA	2478	A

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Mol	Chain	Res	Type
22	BA	2491	U
22	BA	2492	U
22	BA	2493	U
22	BA	2500	U
22	BA	2501	C
22	BA	2502	G
22	BA	2503	A
22	BA	2504	U
22	BA	2505	G
22	BA	2507	C
22	BA	2508	G
22	BA	2509	G
22	BA	2510	C
22	BA	2511	U
22	BA	2512	C
22	BA	2517	C
22	BA	2518	A
22	BA	2520	C
22	BA	2521	C
22	BA	2529	G
22	BA	2542	A
22	BA	2543	G
22	BA	2554	U
22	BA	2555	U
22	BA	2566	A
22	BA	2567	G
22	BA	2573	C
22	BA	2574	G
22	BA	2581	G
22	BA	2582	G
22	BA	2585	U
22	BA	2586	U
22	BA	2603	G
22	BA	2604	U
22	BA	2609	U
22	BA	2610	C
22	BA	2611	C
22	BA	2612	C
22	BA	2613	U
22	BA	2614	A
22	BA	2615	U
22	BA	2616	C

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Mol	Chain	Res	Type
22	BA	2630	G
22	BA	2638	G
22	BA	2645	G
22	BA	2646	C
22	BA	2654	A
22	BA	2655	G
22	BA	2656	U
22	BA	2657	A
22	BA	2661	G
22	BA	2663	G
22	BA	2673	G
22	BA	2681	C
22	BA	2682	A
22	BA	2683	C
22	BA	2684	U
22	BA	2690	U
22	BA	2691	C
22	BA	2692	G
22	BA	2712	C
22	BA	2713	U
22	BA	2714	G
22	BA	2716	C
22	BA	2717	C
22	BA	2724	U
22	BA	2725	A
22	BA	2726	A
22	BA	2727	A
22	BA	2728	U
22	BA	2729	G
22	BA	2730	C
22	BA	2732	G
22	BA	2733	A
22	BA	2748	A
22	BA	2750	A
22	BA	2751	G
22	BA	2752	C
22	BA	2753	A
22	BA	2756	U
22	BA	2757	A
22	BA	2758	A
22	BA	2762	C
22	BA	2769	U

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Mol	Chain	Res	Type
22	BA	2776	A
22	BA	2777	G
22	BA	2778	A
22	BA	2779	U
22	BA	2781	A
22	BA	2782	G
22	BA	2791	G
22	BA	2792	A
22	BA	2798	U
22	BA	2799	A
22	BA	2800	A
22	BA	2801	G
22	BA	2802	G
22	BA	2808	G
22	BA	2809	A
22	BA	2810	A
22	BA	2812	G
22	BA	2817	U
22	BA	2820	A
22	BA	2821	A
22	BA	2833	U
22	BA	2835	A
22	BA	2836	U
22	BA	2837	A
22	BA	2849	U
22	BA	2861	U
22	BA	2866	U
22	BA	2867	G
22	BA	2868	A
22	BA	2869	G
22	BA	2874	C
22	BA	2875	C
22	BA	2879	A
22	BA	2880	C
22	BA	2883	A
22	BA	2884	U
22	BA	2886	A
22	BA	2893	A
22	BA	2894	G
22	BA	2895	G
23	BB	12	C
23	BB	13	G

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Mol	Chain	Res	Type
23	BB	14	U
23	BB	15	A
23	BB	16	G
23	BB	17	C
23	BB	24	G
23	BB	25	U
23	BB	30	C
23	BB	35	C
23	BB	37	C
23	BB	40	U
23	BB	41	G
23	BB	42	C
23	BB	43	C
23	BB	44	G
23	BB	45	A
23	BB	46	A
23	BB	52	A
23	BB	53	A
23	BB	54	G
23	BB	56	G
23	BB	57	A
23	BB	58	A
23	BB	66	A
23	BB	67	G
23	BB	68	C
23	BB	87	U
23	BB	88	C
23	BB	89	U
23	BB	90	C
23	BB	91	C
23	BB	99	A
23	BB	108	A
23	BB	109	A
23	BB	110	C
53	CA	6	G
53	CA	7	A
53	CA	8	A
53	CA	9	G
53	CA	10	A
53	CA	13	U
53	CA	14	U
53	CA	15	G

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Mol	Chain	Res	Type
53	CA	16	A
53	CA	22	G
53	CA	31	G
53	CA	32	A
53	CA	33	A
53	CA	39	G
53	CA	40	C
53	CA	47	C
53	CA	48	C
53	CA	51	A
53	CA	52	C
53	CA	53	A
53	CA	61	G
53	CA	62	U
53	CA	65	A
53	CA	66	A
53	CA	67	C
53	CA	68	G
53	CA	69	G
53	CA	70	U
53	CA	71	A
53	CA	72	A
53	CA	73	C
53	CA	74	A
53	CA	76	G
53	CA	77	A
53	CA	80	A
53	CA	81	A
53	CA	82	G
53	CA	83	C
53	CA	85	U
53	CA	86	G
53	CA	87	C
53	CA	88	U
53	CA	89	U
53	CA	90	C
53	CA	91	U
53	CA	92	U
53	CA	93	U
53	CA	94	G
53	CA	95	C
53	CA	96	U

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Mol	Chain	Res	Type
53	CA	97	G
53	CA	98	A
53	CA	101	A
53	CA	110	C
53	CA	115	G
53	CA	116	A
53	CA	117	G
53	CA	119	A
53	CA	120	A
53	CA	121	U
53	CA	122	G
53	CA	123	U
53	CA	130	A
53	CA	131	A
53	CA	132	C
53	CA	133	U
53	CA	141	G
53	CA	143	A
53	CA	144	G
53	CA	154	U
53	CA	155	A
53	CA	160	A
53	CA	164	G
53	CA	166	U
53	CA	174	A
53	CA	175	C
53	CA	177	G
53	CA	178	C
53	CA	181	A
53	CA	182	A
53	CA	184	G
53	CA	185	U
53	CA	195	A
53	CA	198	G
53	CA	199	A
53	CA	200	G
53	CA	201	G
53	CA	207	C
53	CA	208	U
53	CA	209	U
53	CA	210	C
53	CA	211	G

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Mol	Chain	Res	Type
53	CA	212	G
53	CA	213	G
53	CA	214	C
53	CA	239	U
53	CA	240	G
53	CA	241	G
53	CA	243	A
53	CA	244	U
53	CA	245	U
53	CA	247	G
53	CA	248	C
53	CA	249	U
53	CA	250	A
53	CA	251	G
53	CA	252	U
53	CA	253	A
53	CA	254	G
53	CA	258	G
53	CA	266	G
53	CA	267	C
53	CA	268	U
53	CA	275	G
53	CA	276	G
53	CA	277	C
53	CA	278	G
53	CA	280	C
53	CA	282	A
53	CA	283	U
53	CA	289	G
53	CA	298	A
53	CA	301	G
53	CA	305	G
53	CA	306	A
53	CA	315	A
53	CA	316	C
53	CA	317	U
53	CA	321	A
53	CA	328	C
53	CA	329	A
53	CA	330	C
53	CA	331	G
53	CA	332	G

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Mol	Chain	Res	Type
53	CA	338	A
53	CA	344	A
53	CA	345	C
53	CA	346	G
53	CA	347	G
53	CA	348	G
53	CA	349	A
53	CA	350	G
53	CA	351	G
53	CA	352	C
53	CA	353	A
53	CA	354	G
53	CA	365	U
53	CA	367	U
53	CA	369	G
53	CA	370	C
53	CA	372	C
53	CA	373	A
53	CA	374	A
53	CA	375	U
53	CA	381	C
53	CA	382	A
53	CA	384	G
53	CA	389	A
53	CA	390	U
53	CA	397	A
53	CA	398	U
53	CA	406	G
53	CA	411	A
53	CA	412	A
53	CA	413	G
53	CA	414	A
53	CA	415	A
53	CA	417	G
53	CA	421	U
53	CA	422	C
53	CA	423	G
53	CA	424	G
53	CA	425	G
53	CA	428	G
53	CA	429	U
53	CA	430	A

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Mol	Chain	Res	Type
53	CA	431	A
53	CA	437	U
53	CA	438	U
53	CA	439	U
53	CA	440	C
53	CA	452	A
53	CA	453	G
53	CA	454	G
53	CA	456	A
53	CA	457	G
53	CA	458	U
53	CA	461	A
53	CA	463	U
53	CA	464	U
53	CA	465	A
53	CA	466	A
53	CA	467	U
53	CA	468	A
53	CA	469	C
53	CA	474	G
53	CA	476	U
53	CA	478	A
53	CA	479	U
53	CA	481	G
53	CA	482	A
53	CA	483	C
53	CA	484	G
53	CA	485	U
53	CA	486	U
53	CA	487	A
53	CA	496	A
53	CA	497	G
53	CA	498	A
53	CA	499	A
53	CA	500	G
53	CA	501	C
53	CA	508	U
53	CA	509	A
53	CA	510	A
53	CA	511	C
53	CA	512	U
53	CA	513	C

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Mol	Chain	Res	Type
53	CA	514	C
53	CA	517	G
53	CA	518	C
53	CA	519	C
53	CA	520	A
53	CA	521	G
53	CA	522	C
53	CA	527	G
53	CA	528	C
53	CA	531	U
53	CA	532	A
53	CA	533	A
53	CA	534	U
53	CA	535	A
53	CA	536	C
53	CA	537	G
53	CA	548	G
53	CA	549	C
53	CA	559	A
53	CA	560	A
53	CA	562	U
53	CA	563	A
53	CA	564	C
53	CA	565	U
53	CA	566	G
53	CA	567	G
53	CA	568	G
53	CA	572	A
53	CA	573	A
53	CA	575	G
53	CA	576	C
53	CA	577	G
53	CA	578	C
53	CA	596	A
53	CA	597	G
53	CA	610	U
53	CA	631	C
53	CA	642	A
53	CA	643	C
53	CA	644	U
53	CA	653	U
53	CA	654	G

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Mol	Chain	Res	Type
53	CA	655	A
53	CA	665	A
53	CA	688	G
53	CA	689	C
53	CA	694	A
53	CA	695	A
53	CA	700	G
53	CA	701	U
53	CA	702	A
53	CA	703	G
53	CA	704	A
53	CA	705	G
53	CA	718	A
53	CA	719	C
53	CA	721	G
53	CA	722	G
53	CA	723	U
53	CA	724	G
53	CA	731	G
53	CA	733	G
53	CA	734	G
53	CA	735	C
53	CA	748	G
53	CA	752	G
53	CA	753	A
53	CA	754	C
53	CA	755	G
53	CA	756	C
53	CA	760	G
53	CA	777	A
53	CA	781	A
53	CA	782	A
53	CA	785	G
53	CA	787	A
53	CA	793	U
53	CA	794	A
53	CA	795	C
53	CA	799	G
53	CA	803	G
53	CA	804	U
53	CA	810	C
53	CA	812	G

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Mol	Chain	Res	Type
53	CA	815	A
53	CA	816	A
53	CA	817	C
53	CA	818	G
53	CA	819	A
53	CA	821	G
53	CA	822	U
53	CA	828	U
53	CA	829	G
53	CA	841	C
53	CA	842	U
53	CA	843	U
53	CA	844	G
53	CA	845	A
53	CA	846	G
53	CA	847	G
53	CA	849	G
53	CA	870	U
53	CA	871	U
53	CA	874	G
53	CA	875	U
53	CA	880	C
53	CA	885	G
53	CA	886	G
53	CA	889	A
53	CA	890	G
53	CA	891	U
53	CA	892	A
53	CA	914	A
53	CA	915	A
53	CA	926	G
53	CA	927	G
53	CA	934	C
53	CA	935	A
53	CA	936	C
53	CA	937	A
53	CA	942	G
53	CA	945	G
53	CA	960	U
53	CA	961	U
53	CA	962	C
53	CA	963	G

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Mol	Chain	Res	Type
53	CA	966	G
53	CA	968	A
53	CA	969	A
53	CA	970	C
53	CA	972	C
53	CA	974	A
53	CA	975	A
53	CA	976	G
53	CA	977	A
53	CA	979	C
53	CA	980	C
53	CA	982	U
53	CA	983	A
53	CA	985	C
53	CA	987	G
53	CA	989	U
53	CA	990	C
53	CA	991	U
53	CA	992	U
53	CA	993	G
53	CA	995	C
53	CA	996	A
53	CA	997	U
53	CA	1000	A
53	CA	1004	A
53	CA	1006	G
53	CA	1016	A
53	CA	1019	A
53	CA	1020	G
53	CA	1022	A
53	CA	1024	G
53	CA	1026	G
53	CA	1029	U
53	CA	1031	C
53	CA	1032	G
53	CA	1036	A
53	CA	1037	C
53	CA	1046	A
53	CA	1047	G
53	CA	1049	U
53	CA	1050	G
53	CA	1051	C

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Mol	Chain	Res	Type
53	CA	1052	U
53	CA	1053	G
53	CA	1054	C
53	CA	1064	G
53	CA	1065	U
53	CA	1066	C
53	CA	1067	A
53	CA	1068	G
53	CA	1069	C
53	CA	1085	U
53	CA	1086	U
53	CA	1087	G
53	CA	1088	G
53	CA	1094	G
53	CA	1095	U
53	CA	1101	A
53	CA	1102	A
53	CA	1103	C
53	CA	1113	C
53	CA	1125	U
53	CA	1127	G
53	CA	1128	C
53	CA	1129	C
53	CA	1130	A
53	CA	1136	C
53	CA	1137	C
53	CA	1138	G
53	CA	1139	G
53	CA	1140	C
53	CA	1141	C
53	CA	1142	G
53	CA	1143	G
53	CA	1144	G
53	CA	1145	A
53	CA	1146	A
53	CA	1147	C
53	CA	1148	U
53	CA	1149	C
53	CA	1152	A
53	CA	1153	G
53	CA	1158	C
53	CA	1159	U

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Mol	Chain	Res	Type
53	CA	1160	G
53	CA	1161	C
53	CA	1162	C
53	CA	1168	U
53	CA	1169	A
53	CA	1178	G
53	CA	1181	G
53	CA	1183	U
53	CA	1184	G
53	CA	1185	G
53	CA	1190	G
53	CA	1191	A
53	CA	1192	C
53	CA	1193	G
53	CA	1196	A
53	CA	1197	A
53	CA	1200	C
53	CA	1201	A
53	CA	1202	U
53	CA	1203	C
53	CA	1211	U
53	CA	1212	U
53	CA	1213	A
53	CA	1214	C
53	CA	1215	G
53	CA	1217	C
53	CA	1218	C
53	CA	1222	G
53	CA	1224	U
53	CA	1225	A
53	CA	1226	C
53	CA	1227	A
53	CA	1228	C
53	CA	1229	A
53	CA	1230	C
53	CA	1231	G
53	CA	1238	A
53	CA	1239	A
53	CA	1240	U
53	CA	1241	G
53	CA	1243	C
53	CA	1250	A

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Mol	Chain	Res	Type
53	CA	1251	A
53	CA	1256	A
53	CA	1257	A
53	CA	1263	C
53	CA	1266	G
53	CA	1278	G
53	CA	1279	G
53	CA	1280	A
53	CA	1281	C
53	CA	1282	C
53	CA	1283	U
53	CA	1284	C
53	CA	1285	A
53	CA	1286	U
53	CA	1287	A
53	CA	1288	A
53	CA	1289	A
53	CA	1294	G
53	CA	1295	U
53	CA	1297	G
53	CA	1299	A
53	CA	1300	G
53	CA	1301	U
53	CA	1302	C
53	CA	1303	C
53	CA	1305	G
53	CA	1312	G
53	CA	1316	G
53	CA	1317	C
53	CA	1320	C
53	CA	1322	C
53	CA	1323	G
53	CA	1324	A
53	CA	1332	A
53	CA	1337	G
53	CA	1338	G
53	CA	1346	A
53	CA	1348	U
53	CA	1349	A
53	CA	1350	A
53	CA	1359	C
53	CA	1362	A

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Mol	Chain	Res	Type
53	CA	1364	U
53	CA	1365	G
53	CA	1366	C
53	CA	1367	C
53	CA	1368	A
53	CA	1379	G
53	CA	1381	U
53	CA	1382	C
53	CA	1394	A
53	CA	1395	C
53	CA	1396	A
53	CA	1397	C
53	CA	1398	A
53	CA	1399	C
53	CA	1400	C
53	CA	1402	C
53	CA	1406	U
53	CA	1411	C
53	CA	1429	A
53	CA	1432	G
53	CA	1441	A
53	CA	1446	A
53	CA	1447	A
53	CA	1448	C
53	CA	1449	C
53	CA	1450	U
53	CA	1452	C
53	CA	1453	G
53	CA	1454	G
53	CA	1455	G
53	CA	1456	A
53	CA	1491	G
53	CA	1493	A
53	CA	1494	G
53	CA	1497	G
53	CA	1499	A
53	CA	1500	A
53	CA	1502	A
53	CA	1503	A
53	CA	1505	G
53	CA	1506	U
53	CA	1507	A

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Mol	Chain	Res	Type
53	CA	1508	A
53	CA	1517	G
53	CA	1519	A
53	CA	1520	C
53	CA	1529	G
53	CA	1530	G
53	CA	1531	A
22	DA	13	A
22	DA	14	A
22	DA	15	G
22	DA	16	C
22	DA	28	A
22	DA	29	U
22	DA	34	U
22	DA	35	G
22	DA	36	G
22	DA	37	C
22	DA	39	G
22	DA	46	G
22	DA	49	A
22	DA	50	U
22	DA	52	A
22	DA	53	A
22	DA	55	G
22	DA	61	C
22	DA	62	U
22	DA	64	A
22	DA	70	G
22	DA	71	A
22	DA	73	A
22	DA	74	A
22	DA	75	G
22	DA	76	C
22	DA	77	G
22	DA	78	U
22	DA	79	C
22	DA	83	A
22	DA	84	A
22	DA	85	G
22	DA	86	G
22	DA	87	U
22	DA	88	G

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Mol	Chain	Res	Type
22	DA	91	A
22	DA	92	U
22	DA	93	G
22	DA	96	C
22	DA	100	U
22	DA	101	A
22	DA	102	U
22	DA	103	A
22	DA	104	A
22	DA	105	C
22	DA	118	A
22	DA	119	A
22	DA	120	U
22	DA	121	G
22	DA	122	G
22	DA	123	G
22	DA	126	A
22	DA	128	C
22	DA	129	C
22	DA	130	C
22	DA	134	G
22	DA	139	U
22	DA	140	C
22	DA	141	G
22	DA	142	A
22	DA	143	C
22	DA	144	A
22	DA	155	A
22	DA	156	A
22	DA	160	A
22	DA	162	U
22	DA	163	C
22	DA	164	C
22	DA	165	A
22	DA	166	U
22	DA	180	G
22	DA	181	A
22	DA	196	A
22	DA	197	A
22	DA	198	C
22	DA	199	A
22	DA	204	A

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Mol	Chain	Res	Type
22	DA	205	G
22	DA	206	U
22	DA	207	A
22	DA	208	C
22	DA	216	A
22	DA	217	A
22	DA	218	A
22	DA	222	A
22	DA	223	A
22	DA	224	U
22	DA	225	C
22	DA	227	A
22	DA	228	C
22	DA	229	C
22	DA	230	G
22	DA	231	A
22	DA	232	G
22	DA	233	A
22	DA	234	U
22	DA	235	U
22	DA	236	C
22	DA	241	A
22	DA	242	G
22	DA	244	A
22	DA	245	G
22	DA	248	G
22	DA	249	C
22	DA	250	G
22	DA	251	A
22	DA	255	A
22	DA	258	G
22	DA	264	C
22	DA	265	A
22	DA	266	G
22	DA	271	G
22	DA	272	A
22	DA	273	G
22	DA	274	C
22	DA	277	G
22	DA	280	U
22	DA	281	C
22	DA	284	U

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Mol	Chain	Res	Type
22	DA	285	G
22	DA	294	A
22	DA	295	G
22	DA	299	A
22	DA	301	G
22	DA	302	C
22	DA	303	G
22	DA	304	U
22	DA	311	A
22	DA	312	G
22	DA	314	C
22	DA	315	G
22	DA	322	A
22	DA	323	C
22	DA	324	A
22	DA	325	G
22	DA	326	G
22	DA	329	G
22	DA	330	A
22	DA	334	C
22	DA	335	C
22	DA	336	C
22	DA	337	C
22	DA	343	C
22	DA	351	C
22	DA	353	C
22	DA	354	A
22	DA	362	A
22	DA	367	G
22	DA	371	A
22	DA	372	G
22	DA	373	U
22	DA	374	A
22	DA	375	G
22	DA	383	C
22	DA	386	G
22	DA	387	U
22	DA	388	G
22	DA	389	G
22	DA	390	U
22	DA	391	A
22	DA	392	U

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Mol	Chain	Res	Type
22	DA	395	U
22	DA	396	G
22	DA	397	U
22	DA	398	C
22	DA	399	U
22	DA	404	A
22	DA	405	U
22	DA	406	G
22	DA	407	G
22	DA	408	G
22	DA	411	G
22	DA	412	A
22	DA	413	C
22	DA	414	C
22	DA	424	G
22	DA	425	G
22	DA	430	A
22	DA	436	C
22	DA	442	G
22	DA	443	A
22	DA	444	C
22	DA	445	C
22	DA	446	G
22	DA	447	A
22	DA	449	A
22	DA	450	G
22	DA	451	U
22	DA	455	C
22	DA	457	A
22	DA	459	U
22	DA	460	A
22	DA	461	C
22	DA	462	C
22	DA	475	C
22	DA	476	G
22	DA	477	A
22	DA	478	A
22	DA	479	A
22	DA	480	A
22	DA	481	G
22	DA	482	A
22	DA	485	C

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Mol	Chain	Res	Type
22	DA	490	C
22	DA	491	G
22	DA	492	A
22	DA	493	G
22	DA	498	G
22	DA	502	A
22	DA	504	A
22	DA	505	A
22	DA	507	A
22	DA	510	C
22	DA	511	U
22	DA	512	G
22	DA	527	C
22	DA	528	A
22	DA	529	A
22	DA	530	G
22	DA	531	C
22	DA	532	A
22	DA	533	G
22	DA	534	U
22	DA	544	C
22	DA	545	U
22	DA	546	U
22	DA	547	A
22	DA	548	G
22	DA	549	G
22	DA	562	U
22	DA	563	A
22	DA	571	U
22	DA	572	A
22	DA	573	U
22	DA	574	A
22	DA	575	A
22	DA	576	U
22	DA	577	G
22	DA	586	A
22	DA	587	C
22	DA	588	U
22	DA	589	U
22	DA	590	A
22	DA	603	A
22	DA	604	G

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Mol	Chain	Res	Type
22	DA	605	G
22	DA	606	U
22	DA	607	U
22	DA	613	A
22	DA	614	A
22	DA	616	A
22	DA	617	G
22	DA	618	G
22	DA	619	G
22	DA	621	A
22	DA	622	G
22	DA	623	C
22	DA	627	A
22	DA	628	G
22	DA	629	G
22	DA	637	A
22	DA	638	G
22	DA	639	U
22	DA	645	C
22	DA	646	U
22	DA	654	A
22	DA	655	A
22	DA	656	G
22	DA	657	U
22	DA	662	G
22	DA	669	G
22	DA	671	C
22	DA	672	C
22	DA	673	C
22	DA	674	G
22	DA	686	U
22	DA	687	C
22	DA	688	U
22	DA	699	A
22	DA	702	U
22	DA	705	A
22	DA	706	A
22	DA	717	C
22	DA	726	G
22	DA	727	A
22	DA	728	G
22	DA	729	G

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Mol	Chain	Res	Type
22	DA	730	A
22	DA	731	C
22	DA	739	A
22	DA	740	C
22	DA	741	U
22	DA	745	G
22	DA	746	U
22	DA	747	U
22	DA	748	G
22	DA	751	A
22	DA	753	A
22	DA	756	A
22	DA	757	G
22	DA	763	G
22	DA	764	A
22	DA	765	C
22	DA	766	U
22	DA	775	G
22	DA	776	G
22	DA	777	G
22	DA	778	G
22	DA	782	A
22	DA	783	A
22	DA	784	G
22	DA	785	G
22	DA	789	A
22	DA	790	U
22	DA	791	C
22	DA	792	A
22	DA	794	A
22	DA	795	C
22	DA	798	G
22	DA	800	A
22	DA	801	G
22	DA	802	A
22	DA	803	U
22	DA	805	G
22	DA	806	C
22	DA	812	C
22	DA	819	A
22	DA	827	U
22	DA	828	U

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Mol	Chain	Res	Type
22	DA	830	G
22	DA	831	G
22	DA	832	U
22	DA	846	U
22	DA	847	U
22	DA	858	G
22	DA	859	G
22	DA	860	U
22	DA	861	A
22	DA	862	G
22	DA	866	A
22	DA	867	C
22	DA	868	U
22	DA	869	G
22	DA	875	G
22	DA	877	A
22	DA	878	A
22	DA	902	C
22	DA	910	A
22	DA	912	C
22	DA	914	G
22	DA	915	C
22	DA	916	G
22	DA	917	A
22	DA	919	U
22	DA	922	C
22	DA	932	U
22	DA	933	A
22	DA	934	U
22	DA	941	A
22	DA	944	C
22	DA	946	C
22	DA	947	A
22	DA	948	C
22	DA	953	G
22	DA	958	U
22	DA	959	A
22	DA	960	A
22	DA	961	C
22	DA	962	G
22	DA	963	U
22	DA	964	C

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Mol	Chain	Res	Type
22	DA	965	C
22	DA	973	A
22	DA	974	G
22	DA	976	G
22	DA	977	G
22	DA	983	A
22	DA	985	C
22	DA	990	A
22	DA	991	C
22	DA	992	C
22	DA	993	G
22	DA	996	A
22	DA	1005	C
22	DA	1008	A
22	DA	1009	A
22	DA	1010	A
22	DA	1011	G
22	DA	1012	U
22	DA	1013	C
22	DA	1014	A
22	DA	1020	A
22	DA	1021	A
22	DA	1022	G
22	DA	1023	U
22	DA	1024	G
22	DA	1025	G
22	DA	1026	G
22	DA	1027	A
22	DA	1028	A
22	DA	1033	U
22	DA	1034	G
22	DA	1035	U
22	DA	1039	A
22	DA	1040	A
22	DA	1044	C
22	DA	1045	C
22	DA	1046	A
22	DA	1047	G
22	DA	1048	A
22	DA	1050	A
22	DA	1051	G
22	DA	1055	G

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Mol	Chain	Res	Type
22	DA	1056	G
22	DA	1057	A
22	DA	1060	U
22	DA	1061	U
22	DA	1063	G
22	DA	1064	C
22	DA	1065	U
22	DA	1066	U
22	DA	1068	G
22	DA	1070	A
22	DA	1071	G
22	DA	1072	C
22	DA	1073	A
22	DA	1074	G
22	DA	1075	C
22	DA	1076	C
22	DA	1077	A
22	DA	1078	U
22	DA	1079	C
22	DA	1080	A
22	DA	1081	U
22	DA	1083	U
22	DA	1088	A
22	DA	1089	A
22	DA	1091	G
22	DA	1097	U
22	DA	1100	C
22	DA	1103	A
22	DA	1111	A
22	DA	1112	G
22	DA	1113	U
22	DA	1114	C
22	DA	1115	G
22	DA	1126	A
22	DA	1127	A
22	DA	1128	G
22	DA	1129	A
22	DA	1130	U
22	DA	1132	U
22	DA	1133	A
22	DA	1134	A
22	DA	1135	C

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Mol	Chain	Res	Type
22	DA	1136	G
22	DA	1137	G
22	DA	1139	G
22	DA	1142	A
22	DA	1144	A
22	DA	1145	C
22	DA	1155	A
22	DA	1156	A
22	DA	1157	G
22	DA	1158	C
22	DA	1169	A
22	DA	1172	C
22	DA	1174	U
22	DA	1176	U
22	DA	1204	A
22	DA	1205	A
22	DA	1206	G
22	DA	1207	C
22	DA	1208	C
22	DA	1211	C
22	DA	1213	A
22	DA	1214	A
22	DA	1227	G
22	DA	1231	U
22	DA	1237	A
22	DA	1240	U
22	DA	1241	A
22	DA	1242	U
22	DA	1246	A
22	DA	1247	A
22	DA	1248	G
22	DA	1249	U
22	DA	1250	G
22	DA	1253	A
22	DA	1255	U
22	DA	1256	G
22	DA	1257	C
22	DA	1262	A
22	DA	1265	A
22	DA	1266	G
22	DA	1267	U
22	DA	1268	A

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Mol	Chain	Res	Type
22	DA	1269	A
22	DA	1271	G
22	DA	1272	A
22	DA	1273	U
22	DA	1274	A
22	DA	1275	A
22	DA	1276	A
22	DA	1277	G
22	DA	1286	A
22	DA	1287	A
22	DA	1288	G
22	DA	1290	C
22	DA	1291	C
22	DA	1292	G
22	DA	1300	G
22	DA	1301	A
22	DA	1304	A
22	DA	1305	C
22	DA	1311	G
22	DA	1313	U
22	DA	1314	C
22	DA	1315	C
22	DA	1321	A
22	DA	1324	G
22	DA	1325	U
22	DA	1326	U
22	DA	1327	A
22	DA	1328	A
22	DA	1329	U
22	DA	1330	C
22	DA	1331	G
22	DA	1332	G
22	DA	1333	G
22	DA	1334	G
22	DA	1336	A
22	DA	1337	G
22	DA	1340	U
22	DA	1341	G
22	DA	1342	A
22	DA	1343	G
22	DA	1345	C
22	DA	1346	G

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Mol	Chain	Res	Type
22	DA	1347	A
22	DA	1348	C
22	DA	1352	U
22	DA	1365	A
22	DA	1374	G
22	DA	1379	U
22	DA	1382	G
22	DA	1383	A
22	DA	1385	A
22	DA	1386	C
22	DA	1387	A
22	DA	1388	G
22	DA	1389	G
22	DA	1390	U
22	DA	1397	U
22	DA	1398	C
22	DA	1399	C
22	DA	1400	U
22	DA	1401	G
22	DA	1403	A
22	DA	1404	C
22	DA	1416	G
22	DA	1417	C
22	DA	1418	G
22	DA	1419	A
22	DA	1421	G
22	DA	1426	G
22	DA	1427	A
22	DA	1428	C
22	DA	1430	G
22	DA	1431	A
22	DA	1434	A
22	DA	1440	U
22	DA	1452	G
22	DA	1453	A
22	DA	1455	G
22	DA	1456	G
22	DA	1457	U
22	DA	1458	U
22	DA	1459	G
22	DA	1460	U
22	DA	1461	C

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Mol	Chain	Res	Type
22	DA	1470	A
22	DA	1476	U
22	DA	1478	G
22	DA	1482	G
22	DA	1483	G
22	DA	1490	A
22	DA	1491	G
22	DA	1492	G
22	DA	1493	C
22	DA	1494	A
22	DA	1497	U
22	DA	1498	C
22	DA	1499	C
22	DA	1503	A
22	DA	1504	A
22	DA	1507	C
22	DA	1508	A
22	DA	1509	A
22	DA	1510	G
22	DA	1511	G
22	DA	1512	C
22	DA	1520	U
22	DA	1522	A
22	DA	1524	G
22	DA	1531	C
22	DA	1532	A
22	DA	1534	U
22	DA	1535	A
22	DA	1536	C
22	DA	1537	G
22	DA	1538	G
22	DA	1539	U
22	DA	1540	G
22	DA	1541	C
22	DA	1554	U
22	DA	1555	G
22	DA	1556	C
22	DA	1557	C
22	DA	1558	C
22	DA	1559	U
22	DA	1560	G
22	DA	1561	C

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Mol	Chain	Res	Type
22	DA	1565	C
22	DA	1566	A
22	DA	1567	G
22	DA	1568	G
22	DA	1569	A
22	DA	1570	A
22	DA	1583	A
22	DA	1584	U
22	DA	1585	C
22	DA	1586	A
22	DA	1600	C
22	DA	1603	A
22	DA	1604	C
22	DA	1606	C
22	DA	1607	C
22	DA	1608	A
22	DA	1610	A
22	DA	1612	C
22	DA	1613	G
22	DA	1614	A
22	DA	1615	C
22	DA	1616	A
22	DA	1618	A
22	DA	1619	G
22	DA	1620	G
22	DA	1626	A
22	DA	1627	G
22	DA	1635	A
22	DA	1636	U
22	DA	1637	A
22	DA	1640	A
22	DA	1646	C
22	DA	1647	U
22	DA	1648	U
22	DA	1649	G
22	DA	1650	A
22	DA	1654	A
22	DA	1655	A
22	DA	1656	C
22	DA	1663	G
22	DA	1667	G
22	DA	1668	A

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Mol	Chain	Res	Type
22	DA	1669	A
22	DA	1670	C
22	DA	1674	G
22	DA	1675	C
22	DA	1676	A
22	DA	1682	G
22	DA	1683	U
22	DA	1684	G
22	DA	1694	C
22	DA	1695	G
22	DA	1696	G
22	DA	1697	G
22	DA	1698	A
22	DA	1699	G
22	DA	1700	A
22	DA	1701	A
22	DA	1707	G
22	DA	1713	A
22	DA	1714	U
22	DA	1715	G
22	DA	1717	A
22	DA	1718	G
22	DA	1722	A
22	DA	1723	G
22	DA	1728	C
22	DA	1729	U
22	DA	1730	C
22	DA	1731	G
22	DA	1732	C
22	DA	1733	G
22	DA	1734	G
22	DA	1735	A
22	DA	1736	U
22	DA	1739	A
22	DA	1740	G
22	DA	1756	G
22	DA	1758	U
22	DA	1759	A
22	DA	1760	C
22	DA	1761	C
22	DA	1764	C
22	DA	1773	A

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Mol	Chain	Res	Type
22	DA	1776	G
22	DA	1777	U
22	DA	1780	A
22	DA	1781	U
22	DA	1782	U
22	DA	1783	A
22	DA	1784	A
22	DA	1785	A
22	DA	1786	A
22	DA	1787	A
22	DA	1788	C
22	DA	1800	C
22	DA	1802	A
22	DA	1803	A
22	DA	1804	C
22	DA	1808	A
22	DA	1809	A
22	DA	1810	A
22	DA	1811	G
22	DA	1812	U
22	DA	1815	A
22	DA	1816	C
22	DA	1817	G
22	DA	1818	U
22	DA	1820	U
22	DA	1821	A
22	DA	1822	C
22	DA	1823	G
22	DA	1824	G
22	DA	1828	G
22	DA	1829	A
22	DA	1838	C
22	DA	1839	G
22	DA	1840	G
22	DA	1847	A
22	DA	1848	A
22	DA	1849	G
22	DA	1857	G
22	DA	1865	U
22	DA	1870	C
22	DA	1873	G
22	DA	1875	G

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Mol	Chain	Res	Type
22	DA	1877	A
22	DA	1884	G
22	DA	1889	A
22	DA	1900	A
22	DA	1901	A
22	DA	1902	C
22	DA	1903	G
22	DA	1906	G
22	DA	1913	A
22	DA	1914	C
22	DA	1915	U
22	DA	1916	A
22	DA	1917	U
22	DA	1919	A
22	DA	1920	C
22	DA	1927	A
22	DA	1929	G
22	DA	1930	G
22	DA	1931	U
22	DA	1932	A
22	DA	1933	G
22	DA	1937	A
22	DA	1938	A
22	DA	1939	U
22	DA	1941	C
22	DA	1942	C
22	DA	1943	U
22	DA	1944	U
22	DA	1945	G
22	DA	1946	U
22	DA	1955	U
22	DA	1956	U
22	DA	1957	C
22	DA	1962	C
22	DA	1963	U
22	DA	1964	G
22	DA	1966	A
22	DA	1967	C
22	DA	1968	G
22	DA	1970	A
22	DA	1971	U
22	DA	1972	G

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Mol	Chain	Res	Type
22	DA	1973	G
22	DA	1975	G
22	DA	1981	A
22	DA	1982	U
22	DA	1983	G
22	DA	1991	U
22	DA	1993	U
22	DA	1994	C
22	DA	1996	C
22	DA	1997	C
22	DA	1998	A
22	DA	2015	A
22	DA	2018	G
22	DA	2020	A
22	DA	2021	C
22	DA	2022	U
22	DA	2023	C
22	DA	2024	G
22	DA	2025	C
22	DA	2030	A
22	DA	2031	A
22	DA	2032	G
22	DA	2033	A
22	DA	2034	U
22	DA	2035	G
22	DA	2036	C
22	DA	2037	A
22	DA	2043	C
22	DA	2052	A
22	DA	2055	C
22	DA	2056	G
22	DA	2060	A
22	DA	2061	G
22	DA	2062	A
22	DA	2063	C
22	DA	2064	C
22	DA	2065	C
22	DA	2068	U
22	DA	2069	G
22	DA	2079	U
22	DA	2092	U
22	DA	2093	G

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Mol	Chain	Res	Type
22	DA	2094	A
22	DA	2095	A
22	DA	2104	C
22	DA	2108	A
22	DA	2109	U
22	DA	2110	G
22	DA	2134	A
22	DA	2135	A
22	DA	2136	G
22	DA	2137	U
22	DA	2138	G
22	DA	2139	U
22	DA	2143	C
22	DA	2144	G
22	DA	2145	C
22	DA	2147	A
22	DA	2148	G
22	DA	2150	C
22	DA	2151	U
22	DA	2152	G
22	DA	2153	C
22	DA	2154	A
22	DA	2156	G
22	DA	2157	G
22	DA	2180	U
22	DA	2181	U
22	DA	2183	A
22	DA	2187	U
22	DA	2191	A
22	DA	2192	U
22	DA	2198	A
22	DA	2199	A
22	DA	2200	C
22	DA	2204	G
22	DA	2210	U
22	DA	2211	A
22	DA	2212	A
22	DA	2213	U
22	DA	2214	C
22	DA	2215	C
22	DA	2216	G
22	DA	2217	G

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Mol	Chain	Res	Type
22	DA	2218	G
22	DA	2225	A
22	DA	2226	C
22	DA	2227	A
22	DA	2238	G
22	DA	2239	G
22	DA	2240	U
22	DA	2249	U
22	DA	2250	G
22	DA	2259	U
22	DA	2260	C
22	DA	2266	A
22	DA	2267	A
22	DA	2268	A
22	DA	2275	C
22	DA	2276	G
22	DA	2277	G
22	DA	2279	G
22	DA	2283	C
22	DA	2284	A
22	DA	2286	G
22	DA	2287	A
22	DA	2289	G
22	DA	2290	G
22	DA	2296	U
22	DA	2297	A
22	DA	2298	A
22	DA	2299	U
22	DA	2300	C
22	DA	2305	U
22	DA	2306	C
22	DA	2308	G
22	DA	2309	A
22	DA	2310	C
22	DA	2311	A
22	DA	2312	U
22	DA	2313	C
22	DA	2314	A
22	DA	2315	G
22	DA	2320	U
22	DA	2325	G
22	DA	2332	C

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Mol	Chain	Res	Type
22	DA	2334	U
22	DA	2335	A
22	DA	2337	G
22	DA	2338	C
22	DA	2339	C
22	DA	2340	A
22	DA	2345	G
22	DA	2347	C
22	DA	2348	U
22	DA	2349	G
22	DA	2350	C
22	DA	2357	G
22	DA	2358	A
22	DA	2361	G
22	DA	2382	G
22	DA	2383	G
22	DA	2384	U
22	DA	2385	C
22	DA	2386	A
22	DA	2387	U
22	DA	2390	U
22	DA	2392	A
22	DA	2393	U
22	DA	2394	C
22	DA	2402	U
22	DA	2403	C
22	DA	2404	U
22	DA	2405	G
22	DA	2406	A
22	DA	2407	A
22	DA	2409	G
22	DA	2410	G
22	DA	2423	U
22	DA	2424	C
22	DA	2426	A
22	DA	2427	C
22	DA	2428	G
22	DA	2429	G
22	DA	2430	A
22	DA	2431	U
22	DA	2435	A
22	DA	2439	A

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Mol	Chain	Res	Type
22	DA	2440	C
22	DA	2441	U
22	DA	2447	G
22	DA	2448	A
22	DA	2450	A
22	DA	2451	A
22	DA	2457	U
22	DA	2459	A
22	DA	2460	U
22	DA	2475	C
22	DA	2476	A
22	DA	2490	G
22	DA	2491	U
22	DA	2492	U
22	DA	2493	U
22	DA	2494	G
22	DA	2498	C
22	DA	2499	C
22	DA	2502	G
22	DA	2503	A
22	DA	2504	U
22	DA	2505	G
22	DA	2506	U
22	DA	2513	A
22	DA	2518	A
22	DA	2520	C
22	DA	2521	C
22	DA	2529	G
22	DA	2534	A
22	DA	2543	G
22	DA	2544	G
22	DA	2547	A
22	DA	2554	U
22	DA	2567	G
22	DA	2568	U
22	DA	2573	C
22	DA	2574	G
22	DA	2576	G
22	DA	2578	G
22	DA	2581	G
22	DA	2582	G
22	DA	2583	G

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Mol	Chain	Res	Type
22	DA	2585	U
22	DA	2602	A
22	DA	2603	G
22	DA	2604	U
22	DA	2609	U
22	DA	2610	C
22	DA	2611	C
22	DA	2612	C
22	DA	2613	U
22	DA	2614	A
22	DA	2615	U
22	DA	2616	C
22	DA	2617	U
22	DA	2629	U
22	DA	2630	G
22	DA	2632	A
22	DA	2639	A
22	DA	2640	G
22	DA	2646	C
22	DA	2647	U
22	DA	2654	A
22	DA	2655	G
22	DA	2656	U
22	DA	2657	A
22	DA	2658	C
22	DA	2667	C
22	DA	2668	G
22	DA	2669	G
22	DA	2682	A
22	DA	2683	C
22	DA	2690	U
22	DA	2691	C
22	DA	2692	G
22	DA	2713	U
22	DA	2714	G
22	DA	2715	C
22	DA	2718	G
22	DA	2726	A
22	DA	2727	A
22	DA	2728	U
22	DA	2729	G
22	DA	2730	C

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Mol	Chain	Res	Type
22	DA	2732	G
22	DA	2736	A
22	DA	2748	A
22	DA	2750	A
22	DA	2751	G
22	DA	2752	C
22	DA	2753	A
22	DA	2756	U
22	DA	2757	A
22	DA	2758	A
22	DA	2765	A
22	DA	2777	G
22	DA	2778	A
22	DA	2781	A
22	DA	2782	G
22	DA	2791	G
22	DA	2792	A
22	DA	2799	A
22	DA	2800	A
22	DA	2801	G
22	DA	2808	G
22	DA	2820	A
22	DA	2822	G
22	DA	2823	A
22	DA	2833	U
22	DA	2834	G
22	DA	2835	A
22	DA	2836	U
22	DA	2837	A
22	DA	2838	G
22	DA	2848	G
22	DA	2850	A
22	DA	2851	A
22	DA	2852	G
22	DA	2861	U
22	DA	2866	U
22	DA	2867	G
22	DA	2868	A
22	DA	2869	G
22	DA	2872	A
22	DA	2873	A
22	DA	2874	C

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Mol	Chain	Res	Type
22	DA	2875	C
22	DA	2876	G
22	DA	2877	G
22	DA	2879	A
22	DA	2880	C
22	DA	2881	U
22	DA	2882	A
22	DA	2883	A
22	DA	2894	G
22	DA	2895	G
22	DA	2896	C
22	DA	2902	C
57	DB	9	G
57	DB	12	C
57	DB	13	G
57	DB	15	A
57	DB	16	G
57	DB	17	C
57	DB	24	G
57	DB	25	U
57	DB	30	C
57	DB	35	C
57	DB	36	C
57	DB	41	G
57	DB	42	C
57	DB	43	C
57	DB	44	G
57	DB	45	A
57	DB	46	A
57	DB	48	U
57	DB	57	A
57	DB	58	A
57	DB	59	A
57	DB	63	C
57	DB	64	G
57	DB	65	U
57	DB	66	A
57	DB	67	G
57	DB	68	C
57	DB	69	G
57	DB	70	C
57	DB	87	U

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Mol	Chain	Res	Type
57	DB	88	C
57	DB	89	U
57	DB	90	C
57	DB	91	C
57	DB	99	A
57	DB	109	A
57	DB	110	C
57	DB	111	U
57	DB	112	G

All (1481) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	A
1	AA	9	G
1	AA	13	U
1	AA	14	U
1	AA	30	U
1	AA	32	A
1	AA	47	C
1	AA	51	A
1	AA	52	C
1	AA	60	A
1	AA	61	G
1	AA	64	G
1	AA	66	A
1	AA	73	C
1	AA	74	A
1	AA	85	U
1	AA	87	C
1	AA	91	U
1	AA	92	U
1	AA	94	G
1	AA	95	C
1	AA	97	G
1	AA	109	A
1	AA	110	C
1	AA	115	G
1	AA	116	A
1	AA	119	A
1	AA	129	A
1	AA	131	A

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Mol	Chain	Res	Type
1	AA	173	U
1	AA	174	A
1	AA	175	C
1	AA	181	A
1	AA	184	G
1	AA	197	A
1	AA	198	G
1	AA	199	A
1	AA	243	A
1	AA	245	U
1	AA	246	A
1	AA	247	G
1	AA	250	A
1	AA	251	G
1	AA	252	U
1	AA	266	G
1	AA	267	C
1	AA	268	U
1	AA	274	A
1	AA	275	G
1	AA	279	A
1	AA	305	G
1	AA	306	A
1	AA	315	A
1	AA	316	C
1	AA	327	A
1	AA	330	C
1	AA	344	A
1	AA	346	G
1	AA	351	G
1	AA	352	C
1	AA	366	A
1	AA	368	U
1	AA	369	G
1	AA	372	C
1	AA	373	A
1	AA	388	G
1	AA	411	A
1	AA	414	A
1	AA	421	U
1	AA	423	G
1	AA	428	G

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Mol	Chain	Res	Type
1	AA	429	U
1	AA	430	A
1	AA	451	A
1	AA	452	A
1	AA	466	A
1	AA	468	A
1	AA	484	G
1	AA	486	U
1	AA	487	A
1	AA	495	A
1	AA	497	G
1	AA	498	A
1	AA	499	A
1	AA	500	G
1	AA	508	U
1	AA	509	A
1	AA	511	C
1	AA	512	U
1	AA	517	G
1	AA	519	C
1	AA	531	U
1	AA	534	U
1	AA	535	A
1	AA	536	C
1	AA	547	A
1	AA	548	G
1	AA	559	A
1	AA	563	A
1	AA	564	C
1	AA	566	G
1	AA	567	G
1	AA	575	G
1	AA	577	G
1	AA	595	A
1	AA	596	A
1	AA	641	U
1	AA	642	A
1	AA	652	U
1	AA	654	G
1	AA	688	G
1	AA	701	U
1	AA	717	U

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Mol	Chain	Res	Type
1	AA	718	A
1	AA	721	G
1	AA	722	G
1	AA	724	G
1	AA	754	C
1	AA	755	G
1	AA	792	A
1	AA	794	A
1	AA	812	G
1	AA	813	U
1	AA	815	A
1	AA	816	A
1	AA	817	C
1	AA	821	G
1	AA	870	U
1	AA	874	G
1	AA	875	U
1	AA	884	U
1	AA	885	G
1	AA	889	A
1	AA	891	U
1	AA	913	A
1	AA	914	A
1	AA	934	C
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	965	U
1	AA	966	G
1	AA	968	A
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	976	G
1	AA	982	U
1	AA	984	C
1	AA	991	U
1	AA	994	A
1	AA	1049	U
1	AA	1050	G
1	AA	1051	C

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Mol	Chain	Res	Type
1	AA	1055	A
1	AA	1064	G
1	AA	1066	C
1	AA	1068	G
1	AA	1085	U
1	AA	1087	G
1	AA	1094	G
1	AA	1101	A
1	AA	1102	A
1	AA	1125	U
1	AA	1127	G
1	AA	1129	C
1	AA	1130	A
1	AA	1136	C
1	AA	1141	C
1	AA	1145	A
1	AA	1152	A
1	AA	1157	A
1	AA	1158	C
1	AA	1161	C
1	AA	1162	C
1	AA	1168	U
1	AA	1169	A
1	AA	1181	G
1	AA	1184	G
1	AA	1190	G
1	AA	1191	A
1	AA	1192	C
1	AA	1196	A
1	AA	1197	A
1	AA	1200	C
1	AA	1201	A
1	AA	1202	U
1	AA	1215	G
1	AA	1224	U
1	AA	1226	C
1	AA	1228	C
1	AA	1229	A
1	AA	1239	A
1	AA	1241	G
1	AA	1256	A
1	AA	1258	G

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Mol	Chain	Res	Type
1	AA	1282	C
1	AA	1297	G
1	AA	1303	C
1	AA	1304	G
1	AA	1319	A
1	AA	1320	C
1	AA	1322	C
1	AA	1323	G
1	AA	1324	A
1	AA	1331	G
1	AA	1332	A
1	AA	1336	C
1	AA	1337	G
1	AA	1345	U
1	AA	1348	U
1	AA	1349	A
1	AA	1362	A
1	AA	1365	G
1	AA	1380	U
1	AA	1381	U
1	AA	1394	A
1	AA	1395	C
1	AA	1398	A
1	AA	1399	C
1	AA	1432	G
1	AA	1433	A
1	AA	1453	G
1	AA	1454	G
1	AA	1498	U
1	AA	1499	A
1	AA	1502	A
1	AA	1505	G
1	AA	1507	A
1	AA	1528	U
1	AA	1530	G
1	AA	1531	A
22	BA	13	A
22	BA	14	A
22	BA	27	G
22	BA	33	C
22	BA	34	U
22	BA	35	G

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Mol	Chain	Res	Type
22	BA	49	A
22	BA	52	A
22	BA	60	G
22	BA	62	U
22	BA	63	A
22	BA	70	G
22	BA	73	A
22	BA	74	A
22	BA	75	G
22	BA	84	A
22	BA	85	G
22	BA	91	A
22	BA	92	U
22	BA	100	U
22	BA	119	A
22	BA	121	G
22	BA	125	A
22	BA	126	A
22	BA	127	A
22	BA	137	U
22	BA	138	U
22	BA	142	A
22	BA	143	C
22	BA	162	U
22	BA	164	C
22	BA	177	G
22	BA	196	A
22	BA	199	A
22	BA	200	U
22	BA	204	A
22	BA	206	U
22	BA	215	G
22	BA	216	A
22	BA	221	A
22	BA	223	A
22	BA	227	A
22	BA	229	C
22	BA	230	G
22	BA	232	G
22	BA	241	A
22	BA	243	U
22	BA	249	C

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Mol	Chain	Res	Type
22	BA	265	A
22	BA	266	G
22	BA	271	G
22	BA	273	G
22	BA	301	G
22	BA	302	C
22	BA	310	A
22	BA	312	G
22	BA	321	U
22	BA	324	A
22	BA	329	G
22	BA	333	G
22	BA	345	A
22	BA	346	A
22	BA	373	U
22	BA	386	G
22	BA	388	G
22	BA	390	U
22	BA	391	A
22	BA	395	U
22	BA	403	U
22	BA	404	A
22	BA	411	G
22	BA	412	A
22	BA	421	C
22	BA	422	A
22	BA	434	U
22	BA	435	C
22	BA	442	G
22	BA	446	G
22	BA	454	A
22	BA	459	U
22	BA	474	G
22	BA	475	C
22	BA	479	A
22	BA	480	A
22	BA	481	G
22	BA	482	A
22	BA	489	G
22	BA	491	G
22	BA	503	A
22	BA	505	A

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Mol	Chain	Res	Type
22	BA	506	G
22	BA	507	A
22	BA	509	C
22	BA	512	G
22	BA	513	A
22	BA	527	C
22	BA	528	A
22	BA	529	A
22	BA	531	C
22	BA	533	G
22	BA	571	U
22	BA	572	A
22	BA	575	A
22	BA	587	C
22	BA	588	U
22	BA	603	A
22	BA	604	G
22	BA	613	A
22	BA	614	A
22	BA	616	A
22	BA	620	G
22	BA	621	A
22	BA	627	A
22	BA	637	A
22	BA	638	G
22	BA	645	C
22	BA	655	A
22	BA	669	G
22	BA	685	A
22	BA	687	C
22	BA	704	G
22	BA	705	A
22	BA	726	G
22	BA	727	A
22	BA	728	G
22	BA	729	G
22	BA	739	A
22	BA	746	U
22	BA	747	U
22	BA	752	A
22	BA	753	A
22	BA	762	U

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Mol	Chain	Res	Type
22	BA	763	G
22	BA	764	A
22	BA	765	C
22	BA	774	G
22	BA	782	A
22	BA	788	A
22	BA	800	A
22	BA	802	A
22	BA	805	G
22	BA	806	C
22	BA	811	U
22	BA	829	A
22	BA	858	G
22	BA	860	U
22	BA	865	C
22	BA	913	U
22	BA	914	G
22	BA	915	C
22	BA	931	U
22	BA	933	A
22	BA	945	A
22	BA	946	C
22	BA	957	C
22	BA	958	U
22	BA	961	C
22	BA	962	G
22	BA	972	A
22	BA	984	A
22	BA	985	C
22	BA	988	A
22	BA	989	G
22	BA	990	A
22	BA	995	C
22	BA	996	A
22	BA	1008	A
22	BA	1009	A
22	BA	1011	G
22	BA	1013	C
22	BA	1020	A
22	BA	1021	A
22	BA	1022	G
22	BA	1023	U

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Mol	Chain	Res	Type
22	BA	1025	G
22	BA	1026	G
22	BA	1033	U
22	BA	1045	C
22	BA	1060	U
22	BA	1062	G
22	BA	1063	G
22	BA	1073	A
22	BA	1110	G
22	BA	1111	A
22	BA	1112	G
22	BA	1126	A
22	BA	1128	G
22	BA	1129	A
22	BA	1135	C
22	BA	1141	U
22	BA	1144	A
22	BA	1150	C
22	BA	1151	A
22	BA	1156	A
22	BA	1157	G
22	BA	1204	A
22	BA	1206	G
22	BA	1210	G
22	BA	1213	A
22	BA	1236	G
22	BA	1247	A
22	BA	1249	U
22	BA	1254	A
22	BA	1265	A
22	BA	1267	U
22	BA	1272	A
22	BA	1273	U
22	BA	1275	A
22	BA	1276	A
22	BA	1286	A
22	BA	1287	A
22	BA	1289	C
22	BA	1300	G
22	BA	1303	G
22	BA	1311	G
22	BA	1320	C

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Mol	Chain	Res	Type
22	BA	1321	A
22	BA	1324	G
22	BA	1326	U
22	BA	1329	U
22	BA	1330	C
22	BA	1332	G
22	BA	1340	U
22	BA	1343	G
22	BA	1378	A
22	BA	1379	U
22	BA	1385	A
22	BA	1386	C
22	BA	1396	U
22	BA	1398	C
22	BA	1416	G
22	BA	1417	C
22	BA	1420	A
22	BA	1427	A
22	BA	1429	G
22	BA	1451	C
22	BA	1455	G
22	BA	1458	U
22	BA	1459	G
22	BA	1461	C
22	BA	1475	G
22	BA	1476	U
22	BA	1490	A
22	BA	1491	G
22	BA	1493	C
22	BA	1494	A
22	BA	1497	U
22	BA	1498	C
22	BA	1499	C
22	BA	1508	A
22	BA	1510	G
22	BA	1522	A
22	BA	1535	A
22	BA	1537	G
22	BA	1538	G
22	BA	1554	U
22	BA	1555	G
22	BA	1558	C

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Mol	Chain	Res	Type
22	BA	1560	G
22	BA	1565	C
22	BA	1568	G
22	BA	1602	U
22	BA	1606	C
22	BA	1611	C
22	BA	1615	C
22	BA	1619	G
22	BA	1626	A
22	BA	1634	A
22	BA	1647	U
22	BA	1648	U
22	BA	1653	G
22	BA	1654	A
22	BA	1674	G
22	BA	1681	G
22	BA	1682	G
22	BA	1693	U
22	BA	1695	G
22	BA	1696	G
22	BA	1698	A
22	BA	1700	A
22	BA	1706	C
22	BA	1707	G
22	BA	1713	A
22	BA	1714	U
22	BA	1716	U
22	BA	1732	C
22	BA	1733	G
22	BA	1734	G
22	BA	1739	A
22	BA	1758	U
22	BA	1759	A
22	BA	1780	A
22	BA	1782	U
22	BA	1784	A
22	BA	1785	A
22	BA	1786	A
22	BA	1787	A
22	BA	1799	G
22	BA	1802	A
22	BA	1808	A

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Mol	Chain	Res	Type
22	BA	1809	A
22	BA	1815	A
22	BA	1816	C
22	BA	1817	G
22	BA	1818	U
22	BA	1821	A
22	BA	1828	G
22	BA	1838	C
22	BA	1839	G
22	BA	1847	A
22	BA	1848	A
22	BA	1857	G
22	BA	1858	A
22	BA	1865	U
22	BA	1866	A
22	BA	1870	C
22	BA	1871	A
22	BA	1872	A
22	BA	1884	G
22	BA	1885	A
22	BA	1900	A
22	BA	1918	A
22	BA	1919	A
22	BA	1929	G
22	BA	1931	U
22	BA	1936	A
22	BA	1941	C
22	BA	1942	C
22	BA	1943	U
22	BA	1945	G
22	BA	1954	G
22	BA	1956	U
22	BA	1962	C
22	BA	1963	U
22	BA	1964	G
22	BA	1965	C
22	BA	1966	A
22	BA	1967	C
22	BA	1970	A
22	BA	1971	U
22	BA	1992	G
22	BA	1993	U

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Mol	Chain	Res	Type
22	BA	1996	C
22	BA	1997	C
22	BA	2021	C
22	BA	2023	C
22	BA	2030	A
22	BA	2034	U
22	BA	2035	G
22	BA	2036	C
22	BA	2051	A
22	BA	2060	A
22	BA	2063	C
22	BA	2067	G
22	BA	2068	U
22	BA	2092	U
22	BA	2093	G
22	BA	2136	G
22	BA	2137	U
22	BA	2146	C
22	BA	2148	G
22	BA	2149	U
22	BA	2150	C
22	BA	2197	U
22	BA	2199	A
22	BA	2210	U
22	BA	2214	C
22	BA	2225	A
22	BA	2226	C
22	BA	2238	G
22	BA	2239	G
22	BA	2249	U
22	BA	2258	C
22	BA	2266	A
22	BA	2267	A
22	BA	2275	C
22	BA	2276	G
22	BA	2282	G
22	BA	2283	C
22	BA	2287	A
22	BA	2296	U
22	BA	2297	A
22	BA	2307	G
22	BA	2309	A

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Mol	Chain	Res	Type
22	BA	2311	A
22	BA	2319	G
22	BA	2321	U
22	BA	2324	U
22	BA	2325	G
22	BA	2326	C
22	BA	2333	A
22	BA	2335	A
22	BA	2336	A
22	BA	2337	G
22	BA	2344	U
22	BA	2347	C
22	BA	2383	G
22	BA	2391	G
22	BA	2392	A
22	BA	2405	G
22	BA	2407	A
22	BA	2423	U
22	BA	2425	A
22	BA	2427	C
22	BA	2428	G
22	BA	2430	A
22	BA	2431	U
22	BA	2439	A
22	BA	2440	C
22	BA	2447	G
22	BA	2450	A
22	BA	2458	G
22	BA	2459	A
22	BA	2468	A
22	BA	2469	A
22	BA	2490	G
22	BA	2492	U
22	BA	2501	C
22	BA	2503	A
22	BA	2517	C
22	BA	2520	C
22	BA	2542	A
22	BA	2566	A
22	BA	2572	A
22	BA	2573	C
22	BA	2581	G

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Mol	Chain	Res	Type
22	BA	2602	A
22	BA	2603	G
22	BA	2609	U
22	BA	2611	C
22	BA	2613	U
22	BA	2615	U
22	BA	2629	U
22	BA	2630	G
22	BA	2638	G
22	BA	2645	G
22	BA	2654	A
22	BA	2656	U
22	BA	2681	C
22	BA	2682	A
22	BA	2689	U
22	BA	2691	C
22	BA	2712	C
22	BA	2714	G
22	BA	2725	A
22	BA	2727	A
22	BA	2729	G
22	BA	2732	G
22	BA	2750	A
22	BA	2752	C
22	BA	2756	U
22	BA	2757	A
22	BA	2777	G
22	BA	2778	A
22	BA	2781	A
22	BA	2790	U
22	BA	2791	G
22	BA	2797	U
22	BA	2800	A
22	BA	2801	G
22	BA	2808	G
22	BA	2809	A
22	BA	2820	A
22	BA	2832	U
22	BA	2835	A
22	BA	2848	G
22	BA	2866	U
22	BA	2868	A

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Mol	Chain	Res	Type
22	BA	2873	A
22	BA	2874	C
22	BA	2879	A
22	BA	2893	A
22	BA	2894	G
23	BB	12	C
23	BB	14	U
23	BB	16	G
23	BB	24	G
23	BB	25	U
23	BB	40	U
23	BB	42	C
23	BB	44	G
23	BB	45	A
23	BB	52	A
23	BB	53	A
23	BB	56	G
23	BB	57	A
23	BB	66	A
23	BB	67	G
23	BB	87	U
23	BB	90	C
23	BB	108	A
53	CA	6	G
53	CA	9	G
53	CA	13	U
53	CA	14	U
53	CA	15	G
53	CA	30	U
53	CA	32	A
53	CA	47	C
53	CA	52	C
53	CA	60	A
53	CA	61	G
53	CA	66	A
53	CA	68	G
53	CA	70	U
53	CA	71	A
53	CA	72	A
53	CA	73	C
53	CA	82	G
53	CA	85	U

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Mol	Chain	Res	Type
53	CA	86	G
53	CA	87	C
53	CA	89	U
53	CA	92	U
53	CA	94	G
53	CA	95	C
53	CA	96	U
53	CA	109	A
53	CA	115	G
53	CA	116	A
53	CA	119	A
53	CA	122	G
53	CA	131	A
53	CA	132	C
53	CA	173	U
53	CA	174	A
53	CA	181	A
53	CA	184	G
53	CA	197	A
53	CA	199	A
53	CA	213	G
53	CA	239	U
53	CA	240	G
53	CA	243	A
53	CA	245	U
53	CA	247	G
53	CA	248	C
53	CA	251	G
53	CA	252	U
53	CA	253	A
53	CA	274	A
53	CA	276	G
53	CA	277	C
53	CA	279	A
53	CA	282	A
53	CA	305	G
53	CA	315	A
53	CA	316	C
53	CA	327	A
53	CA	328	C
53	CA	330	C
53	CA	331	G

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Mol	Chain	Res	Type
53	CA	347	G
53	CA	348	G
53	CA	349	A
53	CA	351	G
53	CA	352	C
53	CA	366	A
53	CA	368	U
53	CA	369	G
53	CA	372	C
53	CA	373	A
53	CA	374	A
53	CA	388	G
53	CA	389	A
53	CA	411	A
53	CA	414	A
53	CA	421	U
53	CA	423	G
53	CA	424	G
53	CA	428	G
53	CA	429	U
53	CA	430	A
53	CA	439	U
53	CA	451	A
53	CA	452	A
53	CA	453	G
53	CA	481	G
53	CA	482	A
53	CA	484	G
53	CA	486	U
53	CA	495	A
53	CA	496	A
53	CA	497	G
53	CA	498	A
53	CA	499	A
53	CA	500	G
53	CA	508	U
53	CA	509	A
53	CA	511	C
53	CA	512	U
53	CA	513	C
53	CA	517	G
53	CA	519	C

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Mol	Chain	Res	Type
53	CA	520	A
53	CA	527	G
53	CA	531	U
53	CA	534	U
53	CA	536	C
53	CA	547	A
53	CA	548	G
53	CA	559	A
53	CA	563	A
53	CA	564	C
53	CA	566	G
53	CA	567	G
53	CA	575	G
53	CA	577	G
53	CA	595	A
53	CA	596	A
53	CA	641	U
53	CA	643	C
53	CA	652	U
53	CA	654	G
53	CA	686	U
53	CA	688	G
53	CA	701	U
53	CA	704	A
53	CA	705	G
53	CA	717	U
53	CA	718	A
53	CA	721	G
53	CA	722	G
53	CA	733	G
53	CA	734	G
53	CA	755	G
53	CA	792	A
53	CA	794	A
53	CA	802	A
53	CA	803	G
53	CA	815	A
53	CA	816	A
53	CA	817	C
53	CA	819	A
53	CA	820	U
53	CA	821	G

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Mol	Chain	Res	Type
53	CA	870	U
53	CA	874	G
53	CA	884	U
53	CA	885	G
53	CA	889	A
53	CA	891	U
53	CA	913	A
53	CA	914	A
53	CA	934	C
53	CA	936	C
53	CA	960	U
53	CA	962	C
53	CA	969	A
53	CA	974	A
53	CA	979	C
53	CA	982	U
53	CA	992	U
53	CA	996	A
53	CA	1049	U
53	CA	1051	C
53	CA	1052	U
53	CA	1064	G
53	CA	1066	C
53	CA	1067	A
53	CA	1068	G
53	CA	1085	U
53	CA	1086	U
53	CA	1087	G
53	CA	1101	A
53	CA	1102	A
53	CA	1124	G
53	CA	1127	G
53	CA	1128	C
53	CA	1138	G
53	CA	1139	G
53	CA	1141	C
53	CA	1142	G
53	CA	1143	G
53	CA	1145	A
53	CA	1146	A
53	CA	1147	C
53	CA	1148	U

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Mol	Chain	Res	Type
53	CA	1151	A
53	CA	1152	A
53	CA	1157	A
53	CA	1158	C
53	CA	1160	G
53	CA	1161	C
53	CA	1167	A
53	CA	1184	G
53	CA	1190	G
53	CA	1191	A
53	CA	1200	C
53	CA	1201	A
53	CA	1202	U
53	CA	1217	C
53	CA	1224	U
53	CA	1227	A
53	CA	1230	C
53	CA	1278	G
53	CA	1282	C
53	CA	1283	U
53	CA	1285	A
53	CA	1288	A
53	CA	1298	U
53	CA	1301	U
53	CA	1331	G
53	CA	1345	U
53	CA	1348	U
53	CA	1349	A
53	CA	1366	C
53	CA	1367	C
53	CA	1380	U
53	CA	1381	U
53	CA	1394	A
53	CA	1395	C
53	CA	1396	A
53	CA	1398	A
53	CA	1399	C
53	CA	1447	A
53	CA	1449	C
53	CA	1452	C
53	CA	1453	G
53	CA	1455	G

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Mol	Chain	Res	Type
53	CA	1498	U
53	CA	1499	A
53	CA	1502	A
53	CA	1505	G
53	CA	1507	A
53	CA	1528	U
53	CA	1530	G
22	DA	13	A
22	DA	14	A
22	DA	15	G
22	DA	28	A
22	DA	33	C
22	DA	35	G
22	DA	36	G
22	DA	49	A
22	DA	52	A
22	DA	60	G
22	DA	61	C
22	DA	70	G
22	DA	73	A
22	DA	77	G
22	DA	84	A
22	DA	86	G
22	DA	87	U
22	DA	91	A
22	DA	92	U
22	DA	103	A
22	DA	104	A
22	DA	119	A
22	DA	121	G
22	DA	122	G
22	DA	125	A
22	DA	128	C
22	DA	129	C
22	DA	141	G
22	DA	143	C
22	DA	163	C
22	DA	164	C
22	DA	196	A
22	DA	197	A
22	DA	204	A
22	DA	206	U

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Mol	Chain	Res	Type
22	DA	207	A
22	DA	215	G
22	DA	217	A
22	DA	222	A
22	DA	223	A
22	DA	224	U
22	DA	227	A
22	DA	229	C
22	DA	230	G
22	DA	231	A
22	DA	232	G
22	DA	234	U
22	DA	235	U
22	DA	241	A
22	DA	243	U
22	DA	244	A
22	DA	249	C
22	DA	250	G
22	DA	271	G
22	DA	273	G
22	DA	301	G
22	DA	303	G
22	DA	304	U
22	DA	311	A
22	DA	321	U
22	DA	324	A
22	DA	325	G
22	DA	329	G
22	DA	335	C
22	DA	336	C
22	DA	370	G
22	DA	374	A
22	DA	386	G
22	DA	388	G
22	DA	389	G
22	DA	391	A
22	DA	395	U
22	DA	396	G
22	DA	397	U
22	DA	404	A
22	DA	406	G
22	DA	407	G

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Mol	Chain	Res	Type
22	DA	411	G
22	DA	412	A
22	DA	413	C
22	DA	424	G
22	DA	442	G
22	DA	443	A
22	DA	445	C
22	DA	446	G
22	DA	449	A
22	DA	454	A
22	DA	459	U
22	DA	460	A
22	DA	474	G
22	DA	476	G
22	DA	477	A
22	DA	479	A
22	DA	480	A
22	DA	484	C
22	DA	489	G
22	DA	491	G
22	DA	492	A
22	DA	503	A
22	DA	505	A
22	DA	510	C
22	DA	527	C
22	DA	530	G
22	DA	533	G
22	DA	571	U
22	DA	572	A
22	DA	573	U
22	DA	575	A
22	DA	576	U
22	DA	588	U
22	DA	603	A
22	DA	604	G
22	DA	605	G
22	DA	606	U
22	DA	615	U
22	DA	617	G
22	DA	618	G
22	DA	620	G
22	DA	621	A

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Mol	Chain	Res	Type
22	DA	622	G
22	DA	627	A
22	DA	628	G
22	DA	629	G
22	DA	637	A
22	DA	638	G
22	DA	655	A
22	DA	656	G
22	DA	670	A
22	DA	672	C
22	DA	673	C
22	DA	685	A
22	DA	687	C
22	DA	704	G
22	DA	705	A
22	DA	726	G
22	DA	727	A
22	DA	730	A
22	DA	739	A
22	DA	740	C
22	DA	762	U
22	DA	763	G
22	DA	765	C
22	DA	777	G
22	DA	782	A
22	DA	783	A
22	DA	794	A
22	DA	800	A
22	DA	802	A
22	DA	811	U
22	DA	829	A
22	DA	831	G
22	DA	859	G
22	DA	860	U
22	DA	861	A
22	DA	865	C
22	DA	867	C
22	DA	868	U
22	DA	876	C
22	DA	913	U
22	DA	915	C
22	DA	916	G

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Mol	Chain	Res	Type
22	DA	931	U
22	DA	933	A
22	DA	945	A
22	DA	946	C
22	DA	947	A
22	DA	957	C
22	DA	958	U
22	DA	959	A
22	DA	961	C
22	DA	964	C
22	DA	973	A
22	DA	976	G
22	DA	989	G
22	DA	990	A
22	DA	991	C
22	DA	992	C
22	DA	1008	A
22	DA	1009	A
22	DA	1010	A
22	DA	1011	G
22	DA	1013	C
22	DA	1020	A
22	DA	1021	A
22	DA	1023	U
22	DA	1024	G
22	DA	1025	G
22	DA	1026	G
22	DA	1027	A
22	DA	1033	U
22	DA	1034	G
22	DA	1047	G
22	DA	1050	A
22	DA	1060	U
22	DA	1063	G
22	DA	1064	C
22	DA	1069	A
22	DA	1077	A
22	DA	1078	U
22	DA	1079	C
22	DA	1080	A
22	DA	1110	G
22	DA	1114	C

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Mol	Chain	Res	Type
22	DA	1126	A
22	DA	1129	A
22	DA	1135	C
22	DA	1136	G
22	DA	1141	U
22	DA	1144	A
22	DA	1156	A
22	DA	1157	G
22	DA	1204	A
22	DA	1206	G
22	DA	1207	C
22	DA	1210	G
22	DA	1213	A
22	DA	1247	A
22	DA	1249	U
22	DA	1256	G
22	DA	1265	A
22	DA	1267	U
22	DA	1268	A
22	DA	1272	A
22	DA	1274	A
22	DA	1276	A
22	DA	1289	C
22	DA	1291	C
22	DA	1300	G
22	DA	1303	G
22	DA	1304	A
22	DA	1312	U
22	DA	1313	U
22	DA	1314	C
22	DA	1325	U
22	DA	1327	A
22	DA	1329	U
22	DA	1333	G
22	DA	1340	U
22	DA	1346	G
22	DA	1347	A
22	DA	1385	A
22	DA	1386	C
22	DA	1388	G
22	DA	1389	G
22	DA	1397	U

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Mol	Chain	Res	Type
22	DA	1398	C
22	DA	1399	C
22	DA	1400	U
22	DA	1401	G
22	DA	1415	U
22	DA	1417	C
22	DA	1418	G
22	DA	1427	A
22	DA	1430	G
22	DA	1451	C
22	DA	1455	G
22	DA	1456	G
22	DA	1475	G
22	DA	1482	G
22	DA	1489	C
22	DA	1491	G
22	DA	1492	G
22	DA	1497	U
22	DA	1498	C
22	DA	1508	A
22	DA	1510	G
22	DA	1536	C
22	DA	1539	U
22	DA	1554	U
22	DA	1555	G
22	DA	1556	C
22	DA	1557	C
22	DA	1558	C
22	DA	1560	G
22	DA	1565	C
22	DA	1568	G
22	DA	1569	A
22	DA	1603	A
22	DA	1606	C
22	DA	1612	C
22	DA	1613	G
22	DA	1615	C
22	DA	1619	G
22	DA	1626	A
22	DA	1634	A
22	DA	1635	A
22	DA	1636	U

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Mol	Chain	Res	Type
22	DA	1647	U
22	DA	1648	U
22	DA	1649	G
22	DA	1653	G
22	DA	1654	A
22	DA	1655	A
22	DA	1667	G
22	DA	1669	A
22	DA	1674	G
22	DA	1675	C
22	DA	1681	G
22	DA	1682	G
22	DA	1683	U
22	DA	1693	U
22	DA	1695	G
22	DA	1696	G
22	DA	1698	A
22	DA	1700	A
22	DA	1706	C
22	DA	1713	A
22	DA	1717	A
22	DA	1722	A
22	DA	1731	G
22	DA	1733	G
22	DA	1734	G
22	DA	1735	A
22	DA	1738	G
22	DA	1739	A
22	DA	1758	U
22	DA	1759	A
22	DA	1760	C
22	DA	1776	G
22	DA	1780	A
22	DA	1782	U
22	DA	1784	A
22	DA	1785	A
22	DA	1786	A
22	DA	1787	A
22	DA	1799	G
22	DA	1802	A
22	DA	1803	A
22	DA	1808	A

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Mol	Chain	Res	Type
22	DA	1810	A
22	DA	1811	G
22	DA	1815	A
22	DA	1816	C
22	DA	1817	G
22	DA	1821	A
22	DA	1828	G
22	DA	1838	C
22	DA	1839	G
22	DA	1848	A
22	DA	1900	A
22	DA	1901	A
22	DA	1913	A
22	DA	1915	U
22	DA	1916	A
22	DA	1918	A
22	DA	1919	A
22	DA	1929	G
22	DA	1931	U
22	DA	1932	A
22	DA	1936	A
22	DA	1941	C
22	DA	1943	U
22	DA	1945	G
22	DA	1954	G
22	DA	1956	U
22	DA	1962	C
22	DA	1963	U
22	DA	1965	C
22	DA	1967	C
22	DA	1970	A
22	DA	1972	G
22	DA	1980	G
22	DA	1981	A
22	DA	1982	U
22	DA	1992	G
22	DA	1993	U
22	DA	1996	C
22	DA	1997	C
22	DA	2021	C
22	DA	2023	C
22	DA	2024	G

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Mol	Chain	Res	Type
22	DA	2030	A
22	DA	2034	U
22	DA	2036	C
22	DA	2051	A
22	DA	2052	A
22	DA	2063	C
22	DA	2064	C
22	DA	2067	G
22	DA	2068	U
22	DA	2092	U
22	DA	2094	A
22	DA	2133	G
22	DA	2135	A
22	DA	2136	G
22	DA	2143	C
22	DA	2148	G
22	DA	2150	C
22	DA	2179	C
22	DA	2197	U
22	DA	2199	A
22	DA	2210	U
22	DA	2214	C
22	DA	2216	G
22	DA	2217	G
22	DA	2225	A
22	DA	2226	C
22	DA	2238	G
22	DA	2239	G
22	DA	2249	U
22	DA	2258	C
22	DA	2259	U
22	DA	2266	A
22	DA	2267	A
22	DA	2275	C
22	DA	2276	G
22	DA	2282	G
22	DA	2283	C
22	DA	2286	G
22	DA	2288	A
22	DA	2289	G
22	DA	2296	U
22	DA	2299	U

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Mol	Chain	Res	Type
22	DA	2311	A
22	DA	2314	A
22	DA	2334	U
22	DA	2337	G
22	DA	2339	C
22	DA	2344	U
22	DA	2347	C
22	DA	2348	U
22	DA	2349	G
22	DA	2384	U
22	DA	2386	A
22	DA	2391	G
22	DA	2392	A
22	DA	2404	U
22	DA	2406	A
22	DA	2407	A
22	DA	2409	G
22	DA	2425	A
22	DA	2428	G
22	DA	2429	G
22	DA	2439	A
22	DA	2440	C
22	DA	2447	G
22	DA	2450	A
22	DA	2458	G
22	DA	2459	A
22	DA	2490	G
22	DA	2492	U
22	DA	2493	U
22	DA	2497	A
22	DA	2498	C
22	DA	2503	A
22	DA	2504	U
22	DA	2505	G
22	DA	2520	C
22	DA	2542	A
22	DA	2543	G
22	DA	2566	A
22	DA	2567	G
22	DA	2572	A
22	DA	2573	C
22	DA	2581	G

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Mol	Chain	Res	Type
22	DA	2582	G
22	DA	2601	C
22	DA	2603	G
22	DA	2609	U
22	DA	2611	C
22	DA	2613	U
22	DA	2615	U
22	DA	2616	C
22	DA	2639	A
22	DA	2645	G
22	DA	2646	C
22	DA	2654	A
22	DA	2656	U
22	DA	2657	A
22	DA	2666	C
22	DA	2667	C
22	DA	2668	G
22	DA	2681	C
22	DA	2682	A
22	DA	2689	U
22	DA	2691	C
22	DA	2712	C
22	DA	2714	G
22	DA	2726	A
22	DA	2729	G
22	DA	2750	A
22	DA	2752	C
22	DA	2756	U
22	DA	2757	A
22	DA	2776	A
22	DA	2777	G
22	DA	2781	A
22	DA	2798	U
22	DA	2800	A
22	DA	2832	U
22	DA	2836	U
22	DA	2837	A
22	DA	2848	G
22	DA	2850	A
22	DA	2851	A
22	DA	2866	U
22	DA	2868	A

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Mol	Chain	Res	Type
22	DA	2873	A
22	DA	2874	C
22	DA	2875	C
22	DA	2876	G
22	DA	2879	A
22	DA	2880	C
22	DA	2881	U
22	DA	2893	A
22	DA	2895	G
57	DB	12	C
57	DB	13	G
57	DB	16	G
57	DB	40	U
57	DB	45	A
57	DB	56	G
57	DB	58	A
57	DB	66	A
57	DB	68	C
57	DB	87	U
57	DB	88	C
57	DB	90	C
57	DB	108	A
57	DB	110	C
57	DB	111	U

5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 364 ligands modelled in this entry, 363 are monoatomic - leaving 1 for Mogul analysis.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond

length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 2$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
60	CLY	BA	3135	-	26,28,28	1.52	6 (23%)	31,40,40	1.49	8 (25%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
60	CLY	BA	3135	-	-	2/21/53/53	0/2/2/2

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
60	BA	3135	CLY	C14-N2	3.44	1.51	1.47
60	BA	3135	CLY	C15-N2	2.80	1.52	1.46
60	BA	3135	CLY	O5-C4	2.77	1.48	1.44
60	BA	3135	CLY	C6-S1	2.26	1.84	1.79
60	BA	3135	CLY	C12-C11	-2.17	1.50	1.53
60	BA	3135	CLY	C11-N2	2.14	1.51	1.46

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
60	BA	3135	CLY	C11-C10-N1	-3.30	109.28	116.52
60	BA	3135	CLY	C10-C11-N2	-2.39	107.53	112.39
60	BA	3135	CLY	O4-C1-C2	-2.35	104.84	110.38
60	BA	3135	CLY	C12-C13-C16	-2.33	112.01	114.68
60	BA	3135	CLY	C9-C8-CL1	-2.25	105.14	108.70
60	BA	3135	CLY	C4-C7-N1	-2.20	103.19	110.62
60	BA	3135	CLY	C5-O5-C4	-2.20	111.29	114.17
60	BA	3135	CLY	C15-N2-C14	2.17	115.39	112.48

There are no chirality outliers.

All (2) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
60	BA	3135	CLY	N1-C10-C11-C12

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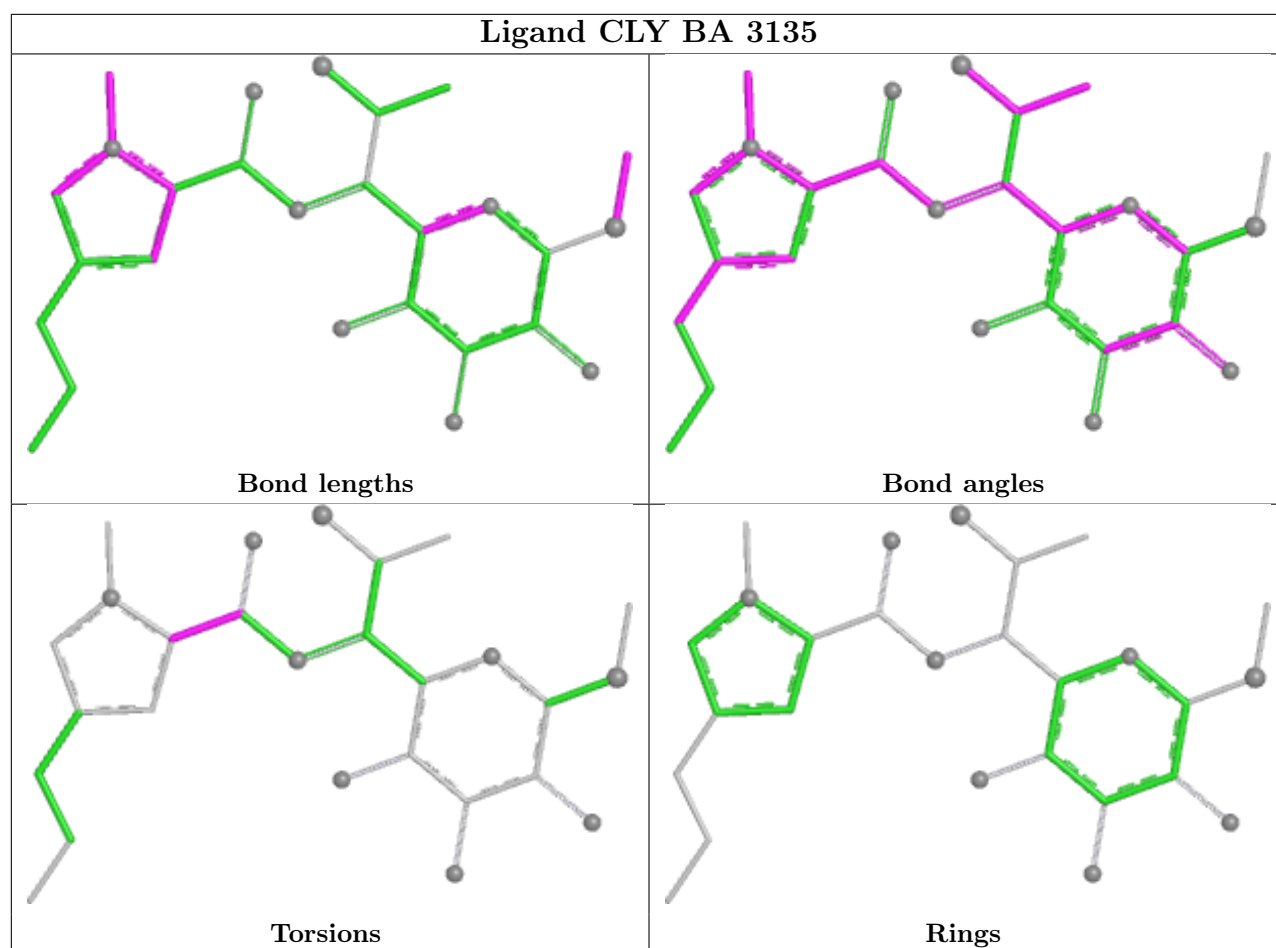
Mol	Chain	Res	Type	Atoms
60	BA	3135	CLY	N1-C10-C11-N2

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
60	BA	3135	CLY	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ > 2			OWAB(Å ²)	Q < 0.9
1	AA	1533/1533 (100%)	-0.39	25 (1%)	70	52	26, 75, 180, 427	0
2	AB	218/218 (100%)	0.55	8 (3%)	45	30	111, 151, 210, 294	0
2	CB	218/218 (100%)	0.87	23 (10%)	11	10	125, 161, 248, 300	0
3	AC	206/206 (100%)	0.14	8 (3%)	43	29	51, 97, 147, 208	0
3	CC	206/206 (100%)	0.65	17 (8%)	17	14	74, 144, 225, 261	0
4	AD	205/205 (100%)	0.26	10 (4%)	35	24	43, 83, 164, 311	0
4	CD	205/205 (100%)	0.28	9 (4%)	39	25	31, 59, 113, 227	0
5	AE	150/150 (100%)	0.50	6 (4%)	42	28	55, 78, 148, 255	0
5	CE	150/150 (100%)	0.89	19 (12%)	8	7	55, 85, 149, 258	0
6	AF	100/100 (100%)	0.34	4 (4%)	42	28	53, 90, 143, 171	0
6	CF	100/100 (100%)	0.54	7 (7%)	22	16	72, 107, 167, 226	0
7	AG	151/151 (100%)	0.73	18 (11%)	9	8	67, 129, 199, 248	0
8	AH	129/129 (100%)	0.09	5 (3%)	43	29	38, 71, 123, 214	0
8	CH	129/129 (100%)	0.69	13 (10%)	12	10	53, 100, 161, 214	0
9	AI	127/127 (100%)	0.91	15 (11%)	9	8	66, 125, 243, 279	0
9	CI	127/127 (100%)	1.62	40 (31%)	1	1	111, 184, 282, 308	0
10	AJ	98/98 (100%)	0.59	9 (9%)	14	11	60, 114, 210, 262	0
10	CJ	98/98 (100%)	1.47	23 (23%)	2	2	103, 188, 266, 292	0
11	AK	117/117 (100%)	0.18	2 (1%)	69	50	36, 98, 174, 203	0
11	CK	117/117 (100%)	0.33	5 (4%)	40	26	55, 104, 165, 196	0
12	AL	123/123 (100%)	0.11	9 (7%)	21	16	15, 54, 116, 167	0
12	CL	123/123 (100%)	0.51	12 (9%)	13	11	36, 73, 121, 188	0
13	AM	114/114 (100%)	0.65	9 (7%)	18	14	76, 125, 196, 274	0
14	AN	96/100 (96%)	1.02	19 (19%)	3	2	59, 102, 195, 267	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
14	CN	95/100 (95%)	1.77	36 (37%) 1 1	109, 221, 327, 373	0
15	AO	88/88 (100%)	-0.01	1 (1%) 78 61	36, 70, 123, 182	0
15	CO	88/88 (100%)	0.64	4 (4%) 38 25	59, 103, 158, 277	0
16	AP	82/82 (100%)	0.34	2 (2%) 59 40	44, 74, 148, 243	0
17	AQ	80/80 (100%)	0.36	6 (7%) 20 15	29, 78, 141, 267	0
17	CQ	80/80 (100%)	0.95	12 (15%) 5 5	48, 106, 161, 199	0
18	AR	55/55 (100%)	0.27	5 (9%) 15 12	60, 86, 161, 196	0
18	CR	55/55 (100%)	0.41	3 (5%) 30 21	47, 92, 186, 230	0
19	AS	79/79 (100%)	0.99	11 (13%) 6 5	79, 127, 199, 277	0
19	CS	79/79 (100%)	1.43	25 (31%) 1 1	181, 371, 451, 469	0
20	AT	85/85 (100%)	0.39	7 (8%) 17 14	43, 76, 116, 143	0
20	CT	85/85 (100%)	1.27	21 (24%) 2 1	58, 117, 197, 268	0
21	AU	51/51 (100%)	1.65	18 (35%) 1 1	88, 157, 204, 230	0
21	CU	51/51 (100%)	1.04	7 (13%) 6 6	58, 111, 182, 320	0
22	BA	2854/2903 (98%)	-0.71	48 (1%) 69 50	4, 28, 155, 403	0
22	DA	2841/2903 (97%)	1.06	413 (14%) 6 5	49, 122, 252, 460	0
23	BB	118/118 (100%)	-0.62	0 100 100	13, 43, 77, 106	0
24	BC	271/271 (100%)	-0.00	7 (2%) 57 38	5, 39, 81, 171	0
24	DC	271/271 (100%)	1.36	67 (24%) 2 1	51, 96, 147, 192	0
25	BD	209/209 (100%)	-0.30	2 (0%) 79 63	3, 23, 72, 171	0
25	DD	209/209 (100%)	1.41	54 (25%) 1 1	50, 111, 176, 290	0
26	BE	201/201 (100%)	-0.31	0 100 100	2, 37, 98, 185	0
26	DE	201/201 (100%)	2.38	109 (54%) 0 0	62, 197, 394, 486	0
27	BF	177/177 (100%)	0.01	2 (1%) 78 61	27, 70, 127, 197	0
28	BG	176/176 (100%)	0.09	9 (5%) 33 23	23, 60, 119, 204	0
28	DG	176/176 (100%)	1.14	31 (17%) 4 3	95, 195, 279, 335	0
29	BH	149/149 (100%)	1.23	36 (24%) 2 1	40, 177, 291, 362	0
29	DH	149/149 (100%)	1.93	59 (39%) 1 1	82, 181, 277, 319	0
30	BI	141/141 (100%)	1.50	32 (22%) 2 2	162, 269, 338, 374	0
30	DI	141/141 (100%)	0.90	12 (8%) 16 13	210, 324, 369, 408	0
31	BJ	142/142 (100%)	-0.22	5 (3%) 47 31	6, 21, 60, 138	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
31	DJ	142/142 (100%)	1.21	30 (21%) 2 2	63, 102, 163, 184	0
32	BK	122/122 (100%)	-0.25	2 (1%) 70 52	7, 26, 74, 263	0
32	DK	122/122 (100%)	0.99	18 (14%) 5 5	52, 95, 164, 236	0
33	BL	143/143 (100%)	-0.12	2 (1%) 73 55	3, 35, 77, 103	0
33	DL	143/143 (100%)	2.16	64 (44%) 0 0	58, 159, 278, 348	0
34	BM	136/136 (100%)	-0.38	0 100 100	4, 26, 66, 135	0
34	DM	136/136 (100%)	1.01	24 (17%) 4 3	44, 105, 164, 196	0
35	BN	120/120 (100%)	-0.40	1 (0%) 82 68	6, 20, 43, 151	0
35	DN	120/120 (100%)	1.84	43 (35%) 1 1	79, 127, 200, 268	0
36	BO	116/116 (100%)	-0.01	1 (0%) 81 65	26, 43, 77, 126	0
36	DO	116/116 (100%)	1.25	29 (25%) 2 1	124, 168, 240, 292	0
37	BP	114/114 (100%)	-0.24	2 (1%) 67 49	9, 35, 83, 148	0
37	DP	114/114 (100%)	1.31	21 (18%) 3 3	62, 114, 174, 238	0
38	BQ	117/117 (100%)	-0.34	2 (1%) 69 50	3, 16, 43, 199	0
38	DQ	117/117 (100%)	1.66	42 (35%) 1 1	66, 103, 194, 288	0
39	BR	103/103 (100%)	-0.21	3 (2%) 53 35	4, 31, 80, 180	0
39	DR	103/103 (100%)	1.60	28 (27%) 1 1	67, 130, 227, 316	0
40	BS	110/110 (100%)	-0.42	0 100 100	4, 17, 52, 175	0
40	DS	110/110 (100%)	1.98	45 (40%) 0 1	59, 130, 231, 279	0
41	BT	93/93 (100%)	0.49	8 (8%) 16 13	19, 43, 128, 185	0
41	DT	93/93 (100%)	2.70	63 (67%) 0 0	123, 205, 306, 347	0
42	BU	102/102 (100%)	0.19	1 (0%) 79 63	18, 49, 120, 241	0
42	DU	102/102 (100%)	3.69	83 (81%) 0 0	123, 285, 434, 557	0
43	BV	94/94 (100%)	-0.12	0 100 100	15, 43, 86, 142	0
43	DV	94/94 (100%)	0.33	3 (3%) 50 34	97, 143, 194, 233	0
44	BW	79/79 (100%)	0.41	9 (11%) 10 9	10, 30, 105, 223	0
44	DW	79/79 (100%)	2.32	41 (51%) 0 0	82, 140, 238, 284	0
45	BX	77/77 (100%)	-0.07	1 (1%) 75 56	11, 42, 84, 117	0
45	DX	77/77 (100%)	2.24	39 (50%) 0 0	78, 117, 171, 236	0
46	BY	63/63 (100%)	0.55	6 (9%) 14 11	30, 66, 136, 222	0
46	DY	63/63 (100%)	2.61	35 (55%) 0 0	143, 309, 433, 440	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
47	BZ	58/58 (100%)	-0.29	0	100	100	8, 22, 56, 111	0
47	DZ	58/58 (100%)	1.22	12 (20%)	2	2	78, 119, 208, 217	0
48	B0	56/56 (100%)	-0.33	1 (1%)	67	49	3, 24, 70, 159	0
48	D0	56/56 (100%)	1.59	12 (21%)	2	2	63, 139, 242, 298	0
49	B1	50/50 (100%)	-0.14	1 (2%)	65	46	22, 48, 99, 165	0
49	D1	50/50 (100%)	1.49	15 (30%)	1	1	99, 170, 210, 236	0
50	B2	46/46 (100%)	-0.04	1 (2%)	62	43	7, 26, 52, 155	0
50	D2	46/46 (100%)	2.20	23 (50%)	0	0	81, 118, 175, 233	0
51	B3	64/64 (100%)	-0.41	0	100	100	5, 23, 44, 70	0
51	D3	64/64 (100%)	2.64	38 (59%)	0	0	65, 128, 183, 257	0
52	B4	38/38 (100%)	0.06	1 (2%)	57	38	21, 45, 86, 124	0
52	D4	38/38 (100%)	2.63	26 (68%)	0	0	79, 137, 187, 227	0
53	CA	1530/1530 (100%)	0.41	81 (5%)	32	22	34, 102, 281, 444	0
54	CG	150/150 (100%)	1.59	47 (31%)	1	1	107, 224, 298, 322	0
55	CM	113/113 (100%)	1.74	35 (30%)	1	1	182, 402, 494, 538	0
56	CP	80/80 (100%)	1.06	14 (17%)	4	4	51, 94, 155, 236	0
57	DB	117/117 (100%)	0.46	2 (1%)	69	50	95, 169, 224, 274	0
58	DF	178/178 (100%)	0.83	16 (8%)	15	12	183, 225, 286, 338	0
All	All	20431/20551 (99%)	0.48	2330 (11%)	10	9	2, 94, 269, 557	0

All (2330) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
42	DU	30	SER	15.7
26	DE	103	GLY	11.9
26	DE	104	ALA	10.6
37	DP	109	ILE	10.5
38	DQ	7	VAL	10.4
55	CM	97	ARG	9.8
33	DL	26	GLY	9.7
46	DY	14	LEU	9.3
42	DU	4	ILE	9.0
39	DR	50	GLY	8.6
42	DU	62	ALA	8.6
49	D1	35	LEU	8.4
29	DH	113	SER	8.1

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Mol	Chain	Res	Type	RSRZ
42	DU	35	VAL	8.1
33	DL	106	GLU	8.1
40	DS	40	ASN	8.0
42	DU	34	ILE	8.0
25	DD	144	GLY	7.6
14	CN	3	GLN	7.5
42	DU	80	ASP	7.3
33	DL	101	ILE	7.2
38	DQ	36	GLN	7.2
22	DA	2062	A	7.2
42	DU	59	GLU	7.1
45	DX	49	ARG	7.0
44	DW	74	LYS	6.9
33	DL	15	ALA	6.9
9	AI	129	ARG	6.8
46	DY	17	GLU	6.8
24	DC	253	GLY	6.7
39	BR	50	GLY	6.7
10	CJ	49	PHE	6.6
10	CJ	61	ALA	6.6
46	DY	21	LEU	6.6
8	AH	1	SER	6.6
29	DH	93	SER	6.6
29	DH	112	LYS	6.6
20	CT	3	ILE	6.5
41	DT	72	GLN	6.5
51	D3	22	LYS	6.5
42	DU	41	VAL	6.5
45	DX	19	HIS	6.4
41	DT	36	LYS	6.4
51	D3	51	LYS	6.4
29	DH	115	VAL	6.4
33	DL	27	LEU	6.3
42	DU	91	LYS	6.3
42	DU	5	ARG	6.3
51	D3	14	LYS	6.3
41	DT	34	VAL	6.3
4	CD	27	ILE	6.2
21	AU	38	GLU	6.2
42	DU	40	LEU	6.2
38	DQ	12	ARG	6.2
2	CB	109	SER	6.2

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Mol	Chain	Res	Type	RSRZ
38	DQ	10	ARG	6.2
37	DP	111	GLU	6.2
42	DU	26	ASN	6.1
51	D3	60	CYS	6.1
41	DT	43	ILE	6.1
53	CA	1361	G	6.1
41	DT	62	VAL	6.0
29	DH	124	THR	6.0
42	DU	79	ALA	6.0
33	DL	104	GLN	6.0
13	AM	86	ARG	5.9
26	DE	73	ILE	5.9
52	D4	15	LYS	5.9
26	DE	175	ILE	5.9
14	CN	61	ASN	5.9
42	DU	70	ALA	5.9
42	DU	37	GLY	5.8
31	DJ	1	MET	5.8
42	DU	82	VAL	5.8
21	AU	37	TYR	5.8
41	DT	47	VAL	5.8
19	AS	2	ARG	5.7
24	DC	250	GLN	5.7
22	BA	2146	C	5.7
34	DM	20	LEU	5.7
51	D3	27	ASN	5.7
44	DW	35	ILE	5.7
8	CH	1	SER	5.6
45	DX	21	LEU	5.6
39	DR	86	GLN	5.6
22	BA	2147	A	5.6
7	AG	79	VAL	5.6
58	DF	129	MET	5.6
42	DU	100	GLU	5.6
44	DW	37	VAL	5.5
9	CI	116	GLY	5.5
24	DC	241	LYS	5.5
28	DG	167	VAL	5.5
33	DL	71	ALA	5.5
9	CI	124	PRO	5.5
26	DE	98	LYS	5.5
25	DD	166	GLY	5.5

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Mol	Chain	Res	Type	RSRZ
22	DA	2585	U	5.5
41	BT	16	VAL	5.4
44	DW	73	PRO	5.4
55	CM	111	PRO	5.4
52	D4	26	ILE	5.4
9	CI	67	LYS	5.4
44	DW	50	VAL	5.4
48	D0	22	THR	5.4
24	DC	109	LEU	5.4
2	CB	106	VAL	5.4
52	D4	29	ALA	5.4
24	DC	47	ARG	5.4
50	D2	1	MET	5.4
42	DU	1	ALA	5.4
26	DE	42	GLY	5.3
22	DA	810	U	5.3
42	DU	78	LYS	5.3
25	DD	167	ASN	5.3
36	DO	20	GLU	5.3
29	DH	123	ARG	5.3
22	DA	2406	A	5.3
26	DE	148	ILE	5.3
33	DL	103	ILE	5.3
42	DU	102	ILE	5.3
14	CN	100	TRP	5.2
26	DE	88	ARG	5.2
41	DT	35	ALA	5.2
42	DU	2	ALA	5.2
4	AD	28	ASP	5.2
24	DC	58	LYS	5.2
33	DL	92	LEU	5.2
52	D4	10	LEU	5.2
14	CN	6	LYS	5.2
22	DA	1116	G	5.2
26	DE	147	LEU	5.1
44	DW	77	LYS	5.1
24	DC	46	GLY	5.1
1	AA	1362	A	5.1
46	DY	10	SER	5.1
29	DH	120	GLY	5.1
26	DE	79	ARG	5.1
46	DY	29	ARG	5.1

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Mol	Chain	Res	Type	RSRZ
10	CJ	63	ASP	5.1
10	CJ	48	ARG	5.1
10	CJ	50	THR	5.0
22	BA	2885	G	5.0
11	CK	125	LYS	5.0
50	D2	43	THR	5.0
42	DU	31	GLY	5.0
29	DH	131	SER	5.0
40	DS	45	VAL	5.0
28	DG	165	ASP	5.0
20	AT	3	ILE	5.0
19	AS	38	THR	5.0
26	DE	57	LYS	5.0
29	DH	95	GLY	5.0
44	DW	42	THR	5.0
20	CT	62	ALA	4.9
38	DQ	89	ILE	4.9
22	BA	2154	A	4.9
22	DA	795	C	4.9
39	DR	88	GLY	4.9
42	DU	77	GLY	4.9
54	CG	7	GLY	4.9
51	D3	56	LEU	4.9
45	DX	20	ALA	4.9
24	DC	233	GLY	4.8
29	DH	133	GLN	4.8
50	B2	46	LYS	4.8
42	DU	75	ALA	4.8
38	DQ	3	VAL	4.8
26	DE	200	LEU	4.8
44	DW	52	CYS	4.8
45	DX	17	ARG	4.8
14	AN	20	PHE	4.8
35	DN	20	MET	4.8
45	DX	76	LYS	4.8
14	CN	62	ARG	4.8
33	DL	70	LYS	4.8
42	DU	25	LYS	4.8
51	D3	30	HIS	4.7
53	CA	1362	A	4.7
29	BH	98	ASP	4.7
44	DW	15	SER	4.7

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Mol	Chain	Res	Type	RSRZ
35	DN	19	ALA	4.7
20	CT	8	LYS	4.7
38	DQ	4	LYS	4.7
46	DY	13	GLU	4.7
31	DJ	96	ARG	4.7
54	CG	15	PRO	4.7
7	AG	4	ARG	4.7
26	DE	102	ARG	4.7
45	DX	2	ARG	4.7
50	D2	12	ARG	4.7
7	AG	1	PRO	4.7
53	CA	1224	U	4.7
33	DL	102	GLY	4.7
53	CA	212	G	4.7
7	AG	77	ARG	4.7
26	DE	179	SER	4.7
38	DQ	1	ALA	4.7
21	AU	31	VAL	4.7
22	DA	1117	C	4.7
19	AS	36	ARG	4.6
51	D3	55	GLY	4.6
29	DH	111	ALA	4.6
42	DU	97	SER	4.6
51	D3	50	SER	4.6
22	DA	2320	U	4.6
25	DD	186	LEU	4.6
29	DH	90	LEU	4.6
26	DE	119	ILE	4.6
30	BI	67	THR	4.6
29	DH	92	GLY	4.6
33	DL	28	GLY	4.6
44	DW	45	HIS	4.6
41	DT	46	ALA	4.6
35	DN	63	ARG	4.6
22	DA	34	U	4.6
51	D3	19	GLY	4.6
33	DL	75	ALA	4.6
22	DA	914	G	4.6
29	BH	99	ILE	4.6
29	BH	113	SER	4.6
39	DR	78	ARG	4.6
29	DH	134	VAL	4.6

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Mol	Chain	Res	Type	RSRZ
50	D2	36	ALA	4.6
33	DL	69	ARG	4.5
55	CM	98	GLY	4.5
18	AR	19	GLU	4.5
42	DU	55	GLY	4.5
51	D3	20	GLY	4.5
39	DR	51	VAL	4.5
26	DE	24	ASN	4.5
29	DH	81	ALA	4.5
45	DX	13	THR	4.5
54	CG	6	ILE	4.5
21	AU	35	GLU	4.5
4	AD	24	VAL	4.5
9	CI	118	ARG	4.5
22	DA	39	G	4.5
22	DA	355	U	4.5
36	DO	24	THR	4.5
47	DZ	33	HIS	4.5
38	DQ	8	ILE	4.5
9	CI	56	MET	4.4
24	DC	240	GLY	4.4
41	DT	37	ASP	4.4
40	DS	37	THR	4.4
26	DE	138	LEU	4.4
14	CN	11	LYS	4.4
46	DY	24	GLU	4.4
24	BC	250	GLN	4.4
29	BH	111	ALA	4.4
29	DH	119	ASN	4.4
35	DN	38	LEU	4.4
9	CI	42	THR	4.4
50	D2	33	ARG	4.4
1	AA	121	U	4.4
50	D2	44	VAL	4.4
53	CA	632	U	4.4
55	CM	96	VAL	4.4
46	DY	5	GLU	4.4
40	DS	44	ALA	4.4
40	DS	85	ILE	4.4
10	CJ	46	LYS	4.4
21	AU	49	ALA	4.4
28	DG	7	PRO	4.4

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Mol	Chain	Res	Type	RSRZ
29	DH	110	VAL	4.4
26	DE	188	MET	4.4
4	CD	34	GLU	4.4
26	DE	201	ALA	4.4
40	DS	5	ALA	4.4
25	DD	10	GLY	4.4
22	DA	2000	C	4.4
56	CP	25	ARG	4.4
9	CI	66	VAL	4.4
41	DT	24	MET	4.3
28	DG	38	ASP	4.3
22	BA	2180	U	4.3
54	CG	38	ALA	4.3
34	DM	119	LEU	4.3
40	DS	96	ILE	4.3
52	D4	31	PRO	4.3
12	AL	123	ALA	4.3
20	CT	65	LEU	4.3
26	DE	87	ALA	4.3
33	DL	68	SER	4.3
44	DW	38	ARG	4.3
42	DU	42	LYS	4.3
35	DN	24	MET	4.3
35	DN	25	ALA	4.3
36	DO	23	ALA	4.3
7	AG	7	GLY	4.3
30	BI	46	ASP	4.3
44	DW	51	GLY	4.3
40	DS	12	SER	4.3
28	DG	155	PRO	4.2
40	DS	100	THR	4.2
26	DE	54	GLY	4.2
38	DQ	24	TYR	4.2
26	DE	193	VAL	4.2
52	D4	33	HIS	4.2
18	CR	20	ILE	4.2
53	CA	1235	U	4.2
21	CU	37	TYR	4.2
14	AN	9	GLU	4.2
30	BI	3	LYS	4.2
42	DU	17	ASP	4.2
49	D1	20	TYR	4.2

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Mol	Chain	Res	Type	RSRZ
55	CM	81	ASP	4.2
22	DA	228	C	4.2
46	BY	63	ALA	4.2
21	CU	53	LYS	4.2
25	DD	121	THR	4.2
31	DJ	112	GLY	4.2
20	CT	35	TYR	4.2
42	DU	58	VAL	4.2
42	DU	74	ALA	4.2
42	DU	71	ILE	4.1
2	CB	103	TRP	4.1
22	DA	1406	U	4.1
29	BH	97	ARG	4.1
17	CQ	7	LEU	4.1
51	D3	46	LYS	4.1
11	AK	125	LYS	4.1
40	DS	42	LYS	4.1
51	D3	31	ILE	4.1
30	BI	132	ALA	4.1
14	AN	51	PRO	4.1
26	DE	21	ARG	4.1
26	DE	55	SER	4.1
41	BT	69	ARG	4.1
42	DU	89	GLY	4.1
5	AE	10	LEU	4.1
26	DE	43	THR	4.1
26	DE	101	TYR	4.1
41	DT	30	ILE	4.1
22	DA	1248	G	4.1
29	DH	105	ALA	4.1
46	DY	32	ALA	4.1
44	BW	73	PRO	4.1
44	DW	41	GLY	4.1
58	DF	131	VAL	4.0
24	DC	271	SER	4.0
21	CU	34	ARG	4.0
44	BW	40	ARG	4.0
33	DL	82	LEU	4.0
12	CL	15	VAL	4.0
46	DY	30	MET	4.0
51	D3	21	PHE	4.0
4	AD	26	ALA	4.0

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Mol	Chain	Res	Type	RSRZ
25	DD	168	GLU	4.0
26	DE	180	LEU	4.0
46	DY	56	LEU	4.0
28	DG	168	VAL	4.0
45	DX	66	VAL	4.0
20	AT	67	HIS	4.0
2	CB	99	MET	4.0
44	DW	34	SER	4.0
12	AL	24	GLU	4.0
26	DE	161	ALA	4.0
30	DI	119	ALA	4.0
41	DT	83	ALA	4.0
9	AI	128	LYS	4.0
26	DE	76	PRO	4.0
26	DE	146	VAL	4.0
29	BH	110	VAL	4.0
22	DA	528	A	4.0
22	DA	786	C	4.0
26	DE	172	ALA	4.0
22	DA	448	U	4.0
2	CB	147	LEU	4.0
30	BI	69	VAL	4.0
36	DO	96	GLY	4.0
22	DA	245	G	4.0
48	D0	5	ASN	4.0
32	DK	16	ALA	4.0
53	CA	206	C	4.0
42	DU	28	LEU	4.0
35	DN	109	PRO	3.9
42	DU	92	VAL	3.9
56	CP	19	VAL	3.9
22	BA	1094	U	3.9
42	DU	101	THR	3.9
54	CG	14	ASP	3.9
29	DH	91	PHE	3.9
41	DT	7	LEU	3.9
29	BH	114	GLU	3.9
41	DT	39	THR	3.9
41	DT	67	VAL	3.9
45	DX	12	VAL	3.9
26	DE	90	GLN	3.9
1	AA	1534	A	3.9

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Mol	Chain	Res	Type	RSRZ
22	DA	93	G	3.9
22	DA	801	G	3.9
22	DA	1654	A	3.9
26	DE	164	LEU	3.9
41	DT	20	ALA	3.9
41	DT	32	LEU	3.9
18	CR	63	TYR	3.9
2	AB	26	MET	3.9
9	CI	127	SER	3.9
12	CL	123	ALA	3.9
41	DT	41	ALA	3.9
17	AQ	69	THR	3.9
19	CS	29	PRO	3.9
24	DC	45	ASN	3.9
29	DH	96	THR	3.8
42	DU	36	GLU	3.8
22	DA	2602	A	3.8
24	DC	27	LYS	3.8
7	AG	36	SER	3.8
25	DD	97	SER	3.8
38	DQ	28	SER	3.8
9	CI	117	LEU	3.8
10	CJ	74	VAL	3.8
29	BH	115	VAL	3.8
9	AI	42	THR	3.8
45	DX	16	ASN	3.8
22	DA	613	A	3.8
1	AA	1286	U	3.8
22	DA	589	U	3.8
11	AK	128	VAL	3.8
52	D4	32	LYS	3.8
51	D3	3	ILE	3.8
52	D4	30	GLU	3.8
19	CS	40	PHE	3.8
33	DL	107	PHE	3.8
40	DS	15	GLN	3.8
42	DU	29	SER	3.8
26	DE	176	ASP	3.8
29	DH	98	ASP	3.8
39	DR	20	VAL	3.8
20	CT	15	LYS	3.8
52	D4	1	MET	3.8

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Mol	Chain	Res	Type	RSRZ
10	CJ	47	GLU	3.8
20	CT	66	ILE	3.8
9	CI	123	ARG	3.8
25	DD	59	ARG	3.8
26	DE	135	ALA	3.8
52	D4	2	LYS	3.8
25	DD	128	ARG	3.8
3	CC	36	PHE	3.8
6	AF	54	LEU	3.8
35	DN	21	PHE	3.8
22	DA	587	C	3.7
48	D0	4	GLN	3.7
32	DK	14	SER	3.7
2	AB	150	ILE	3.7
38	DQ	85	ALA	3.7
26	DE	169	VAL	3.7
51	D3	42	HIS	3.7
40	DS	11	ARG	3.7
29	DH	117	LEU	3.7
45	DX	48	LEU	3.7
18	CR	19	GLU	3.7
41	DT	42	GLU	3.7
47	DZ	55	LYS	3.7
22	DA	669	G	3.7
22	DA	1171	G	3.7
45	DX	3	VAL	3.7
42	DU	73	ASN	3.7
45	DX	10	ARG	3.7
3	CC	166	TRP	3.7
5	AE	114	LEU	3.7
29	BH	112	LYS	3.7
14	AN	28	ALA	3.7
33	DL	30	THR	3.7
46	DY	63	ALA	3.7
48	D0	1	ALA	3.7
41	BT	70	HIS	3.7
6	CF	8	PHE	3.7
26	DE	197	GLU	3.7
9	CI	65	THR	3.7
13	AM	96	VAL	3.7
53	CA	210	C	3.7
31	BJ	142	ILE	3.7

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Mol	Chain	Res	Type	RSRZ
36	DO	5	SER	3.6
46	DY	40	SER	3.6
53	CA	202	G	3.6
56	CP	65	ALA	3.6
58	DF	73	VAL	3.6
44	DW	76	ARG	3.6
44	DW	56	HIS	3.6
2	AB	149	GLY	3.6
17	CQ	28	VAL	3.6
29	DH	114	GLU	3.6
35	DN	29	VAL	3.6
36	DO	16	ARG	3.6
33	DL	61	LEU	3.6
45	DX	29	LEU	3.6
22	DA	437	U	3.6
22	DA	1602	U	3.6
33	DL	36	LYS	3.6
54	CG	61	PHE	3.6
22	DA	1321	A	3.6
22	DA	2725	A	3.6
25	DD	143	PRO	3.6
41	DT	12	ARG	3.6
22	BA	2179	C	3.6
29	DH	106	ALA	3.6
41	DT	10	VAL	3.6
38	DQ	88	GLU	3.6
31	DJ	81	ILE	3.6
35	DN	10	LEU	3.6
24	BC	233	GLY	3.6
25	DD	170	VAL	3.6
34	DM	121	ALA	3.6
52	D4	27	CYS	3.6
33	DL	19	LEU	3.6
42	DU	90	LYS	3.6
22	DA	1606	C	3.6
33	DL	67	THR	3.6
46	DY	31	GLN	3.6
51	D3	9	ALA	3.6
17	CQ	4	ILE	3.6
25	DD	202	ILE	3.6
54	CG	40	SER	3.6
22	DA	1276	A	3.5

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Mol	Chain	Res	Type	RSRZ
8	CH	121	GLY	3.5
42	DU	56	GLY	3.5
47	DZ	14	GLY	3.5
51	D3	8	GLY	3.5
56	CP	64	GLY	3.5
22	DA	1644	C	3.5
22	DA	2300	C	3.5
26	DE	187	VAL	3.5
33	DL	62	PRO	3.5
40	DS	80	PRO	3.5
24	DC	4	LYS	3.5
42	DU	60	LYS	3.5
46	DY	1	MET	3.5
25	DD	126	ASN	3.5
26	DE	108	ILE	3.5
33	DL	23	ILE	3.5
35	DN	43	GLU	3.5
42	DU	98	ASN	3.5
20	AT	5	SER	3.5
24	DC	237	ARG	3.5
33	DL	18	ARG	3.5
41	DT	3	ARG	3.5
45	DX	18	SER	3.5
42	DU	8	ASP	3.5
26	DE	81	GLY	3.5
28	DG	39	ALA	3.5
44	DW	61	LYS	3.5
22	DA	1323	C	3.5
40	DS	95	ARG	3.5
26	DE	80	SER	3.5
31	DJ	107	GLY	3.5
36	BO	2	ASP	3.5
42	DU	66	VAL	3.5
9	CI	43	ALA	3.5
28	DG	173	ALA	3.5
35	DN	65	LEU	3.5
33	DL	48	ARG	3.5
44	DW	40	ARG	3.5
22	DA	1050	A	3.5
22	DA	318	C	3.5
22	DA	946	C	3.5
42	DU	95	PHE	3.5

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Mol	Chain	Res	Type	RSRZ
2	CB	148	GLY	3.5
47	DZ	32	GLY	3.5
10	CJ	52	LEU	3.5
14	CN	32	ASP	3.5
41	DT	13	ALA	3.5
41	DT	14	PRO	3.5
10	CJ	62	ARG	3.5
24	DC	238	ASN	3.5
38	DQ	21	LYS	3.5
42	DU	16	LYS	3.5
30	BI	111	THR	3.5
37	DP	103	THR	3.5
33	DL	16	GLY	3.5
41	DT	85	VAL	3.5
26	DE	110	SER	3.5
51	D3	53	ASP	3.5
22	BA	2138	G	3.5
22	DA	2133	G	3.5
35	DN	17	ARG	3.5
41	BT	73	ARG	3.5
19	CS	66	VAL	3.4
35	DN	107	ASN	3.4
28	DG	170	THR	3.4
40	DS	19	LEU	3.4
9	AI	84	ARG	3.4
26	DE	44	ARG	3.4
26	DE	93	SER	3.4
22	DA	2676	C	3.4
51	D3	24	LYS	3.4
22	DA	974	G	3.4
22	DA	1325	U	3.4
24	DC	219	VAL	3.4
44	DW	22	VAL	3.4
53	CA	1270	G	3.4
3	AC	161	ILE	3.4
29	DH	118	PRO	3.4
36	DO	42	PRO	3.4
9	CI	126	PHE	3.4
33	BL	115	GLU	3.4
33	DL	66	PHE	3.4
22	DA	1383	A	3.4
41	DT	55	VAL	3.4

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Mol	Chain	Res	Type	RSRZ
22	DA	867	C	3.4
22	DA	2295	C	3.4
24	DC	174	ARG	3.4
24	DC	236	GLY	3.4
41	DT	75	GLY	3.4
21	AU	41	THR	3.4
24	DC	20	ASN	3.4
29	DH	99	ILE	3.4
42	DU	38	ILE	3.4
44	BW	74	LYS	3.4
26	DE	186	VAL	3.4
42	DU	13	LEU	3.4
36	DO	13	ARG	3.4
3	CC	1	GLY	3.4
4	CD	36	ALA	3.4
9	AI	43	ALA	3.4
19	CS	67	GLY	3.4
44	DW	53	GLY	3.4
10	CJ	58	ASN	3.4
40	DS	73	LYS	3.4
41	DT	9	LYS	3.4
45	DX	33	HIS	3.4
57	DB	88	C	3.4
22	BA	2402	U	3.4
22	DA	1340	U	3.4
28	DG	154	GLU	3.4
21	CU	32	ARG	3.4
42	DU	69	VAL	3.4
44	DW	13	ARG	3.4
22	DA	60	G	3.4
53	CA	1305	G	3.4
25	DD	31	ALA	3.4
39	DR	73	LYS	3.4
19	CS	41	PRO	3.4
36	DO	12	THR	3.4
46	DY	20	ASN	3.3
22	DA	1420	A	3.3
42	DU	72	PHE	3.3
42	DU	94	PHE	3.3
41	DT	11	LEU	3.3
53	CA	209	U	3.3
53	CA	1209	C	3.3

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Mol	Chain	Res	Type	RSRZ
35	DN	111	ALA	3.3
24	DC	63	ILE	3.3
22	DA	549	G	3.3
22	DA	2061	G	3.3
53	CA	211	G	3.3
36	DO	9	ARG	3.3
56	CP	52	LEU	3.3
24	DC	254	LYS	3.3
26	DE	70	SER	3.3
31	DJ	111	LYS	3.3
29	DH	86	ASP	3.3
55	CM	22	TYR	3.3
1	AA	1533	C	3.3
46	DY	45	GLN	3.3
46	BY	7	ARG	3.3
14	CN	47	LEU	3.3
26	DE	199	MET	3.3
45	DX	55	MET	3.3
58	DF	155	ILE	3.3
38	DQ	90	ASP	3.3
22	DA	1597	A	3.3
22	DA	441	U	3.3
22	DA	1018	U	3.3
42	DU	76	THR	3.3
22	BA	2153	C	3.3
51	D3	13	PHE	3.3
39	DR	76	LYS	3.3
29	DH	100	ALA	3.3
42	DU	83	GLY	3.3
44	BW	51	GLY	3.3
44	DW	21	GLY	3.3
21	AU	50	SER	3.3
28	DG	113	ASP	3.3
24	DC	31	PRO	3.3
42	DU	93	ARG	3.3
22	DA	1332	G	3.3
49	D1	23	THR	3.3
37	DP	110	LYS	3.3
42	DU	32	LYS	3.3
54	CG	104	VAL	3.3
22	DA	2297	A	3.3
53	CA	1351	U	3.3

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Mol	Chain	Res	Type	RSRZ
14	AN	29	ILE	3.3
17	CQ	79	GLU	3.3
53	CA	1314	C	3.3
3	CC	157	GLY	3.3
38	DQ	6	GLY	3.3
51	D3	63	TYR	3.2
6	AF	100	SER	3.2
5	CE	149	PRO	3.2
33	DL	17	LYS	3.2
56	CP	53	ASP	3.2
38	DQ	35	PHE	3.2
30	BI	12	VAL	3.2
24	DC	36	ASN	3.2
54	CG	60	ALA	3.2
54	CG	64	ALA	3.2
22	DA	356	G	3.2
22	DA	2609	U	3.2
22	DA	878	A	3.2
22	DA	2799	A	3.2
19	CS	15	LEU	3.2
54	CG	13	PRO	3.2
8	CH	4	ASP	3.2
25	DD	155	VAL	3.2
5	AE	102	THR	3.2
26	DE	48	THR	3.2
50	D2	22	MET	3.2
34	DM	52	ALA	3.2
29	DH	97	ARG	3.2
33	DL	51	GLU	3.2
34	DM	40	ARG	3.2
38	DQ	32	ARG	3.2
34	DM	8	LYS	3.2
49	D1	33	LEU	3.2
22	DA	467	G	3.2
22	DA	586	A	3.2
22	DA	805	G	3.2
22	DA	1627	G	3.2
22	DA	2319	G	3.2
29	BH	47	PHE	3.2
31	DJ	119	PHE	3.2
53	CA	1356	G	3.2
39	DR	87	GLN	3.2

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Mol	Chain	Res	Type	RSRZ
22	DA	32	C	3.2
14	CN	60	ARG	3.2
24	DC	51	ARG	3.2
24	DC	232	GLY	3.2
12	CL	9	LYS	3.2
44	DW	75	ASN	3.2
55	CM	88	LEU	3.2
41	DT	51	PHE	3.2
26	DE	77	ILE	3.2
26	DE	170	ARG	3.2
36	DO	7	ARG	3.2
40	DS	92	ARG	3.2
14	CN	98	ALA	3.2
22	DA	2266	A	3.2
53	CA	1363	A	3.2
22	DA	442	G	3.2
22	DA	474	G	3.2
22	DA	1250	G	3.2
22	DA	2828	G	3.2
22	DA	440	C	3.2
30	BI	52	LEU	3.2
55	CM	94	LEU	3.2
31	DJ	44	TYR	3.2
19	CS	8	PRO	3.2
42	DU	10	VAL	3.2
26	DE	181	ILE	3.2
36	DO	10	ARG	3.2
41	DT	74	ILE	3.2
42	DU	11	ILE	3.2
26	DE	173	THR	3.2
28	DG	164	ALA	3.2
30	BI	70	THR	3.2
22	BA	138	U	3.1
46	DY	49	ASP	3.1
31	DJ	79	GLY	3.1
41	BT	56	GLU	3.1
22	BA	654	A	3.1
22	DA	33	C	3.1
22	DA	2601	C	3.1
42	DU	64	ILE	3.1
54	CG	100	MET	3.1
26	DE	34	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
29	DH	104	THR	3.1
33	DL	74	THR	3.1
36	DO	6	ALA	3.1
41	DT	45	ALA	3.1
37	DP	96	LEU	3.1
55	CM	110	GLY	3.1
4	CD	146	GLU	3.1
45	DX	45	PHE	3.1
29	BH	32	PRO	3.1
29	DH	25	TYR	3.1
34	DM	17	ASN	3.1
8	AH	2	MET	3.1
35	DN	75	ILE	3.1
53	CA	977	A	3.1
30	BI	1	ALA	3.1
7	AG	37	THR	3.1
22	DA	673	C	3.1
26	DE	134	LEU	3.1
32	DK	42	THR	3.1
45	DX	24	THR	3.1
45	DX	14	GLY	3.1
52	D4	28	SER	3.1
28	BG	55	ASP	3.1
21	AU	23	GLU	3.1
14	AN	33	VAL	3.1
24	DC	269	ARG	3.1
44	DW	19	ARG	3.1
12	CL	4	ASN	3.1
41	DT	2	ILE	3.1
45	DX	9	LYS	3.1
53	CA	121	U	3.1
33	DL	72	ALA	3.1
49	D1	18	HIS	3.1
38	DQ	43	GLN	3.1
51	D3	59	ALA	3.1
46	DY	19	LEU	3.1
22	DA	794	A	3.1
14	AN	57	SER	3.1
9	AI	88	GLU	3.1
22	DA	2008	C	3.1
30	BI	4	VAL	3.1
31	DJ	116	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
35	DN	2	ARG	3.1
40	DS	18	ARG	3.1
45	DX	36	ARG	3.1
39	DR	53	PHE	3.1
37	DP	37	LYS	3.1
22	BA	1093	G	3.1
22	DA	512	G	3.1
22	DA	1407	G	3.1
22	DA	2382	G	3.1
50	D2	13	ASN	3.1
19	AS	68	HIS	3.1
26	DE	143	LEU	3.1
44	DW	31	LEU	3.1
13	AM	98	GLY	3.1
54	CG	111	GLY	3.1
21	AU	34	ARG	3.1
14	CN	33	VAL	3.1
19	AS	34	SER	3.1
48	D0	2	VAL	3.1
29	BH	132	PHE	3.1
24	DC	17	LYS	3.1
44	DW	14	ASP	3.1
53	CA	1324	A	3.1
28	DG	102	ILE	3.1
20	AT	35	TYR	3.1
22	DA	1172	C	3.0
24	DC	60	ALA	3.0
32	DK	119	ALA	3.0
12	CL	13	ARG	3.0
19	AS	7	GLY	3.0
22	DA	291	G	3.0
32	BK	49	ARG	3.0
42	DU	14	THR	3.0
14	CN	10	VAL	3.0
25	DD	73	VAL	3.0
26	DE	32	VAL	3.0
42	DU	12	VAL	3.0
35	DN	56	LYS	3.0
29	BH	82	SER	3.0
30	BI	47	SER	3.0
31	DJ	98	GLU	3.0
33	DL	12	SER	3.0

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Mol	Chain	Res	Type	RSRZ
54	CG	102	TRP	3.0
30	BI	58	ILE	3.0
14	AN	45	LEU	3.0
11	CK	128	VAL	3.0
26	DE	178	VAL	3.0
29	DH	142	VAL	3.0
40	DS	49	LYS	3.0
41	BT	88	LYS	3.0
21	AU	36	PHE	3.0
1	AA	842	U	3.0
22	DA	46	G	3.0
22	DA	51	G	3.0
22	DA	1024	G	3.0
22	DA	1252	G	3.0
22	DA	1311	G	3.0
22	DA	2110	G	3.0
30	BI	105	LEU	3.0
33	DL	138	ALA	3.0
51	D3	64	ALA	3.0
39	DR	80	ARG	3.0
42	DU	20	LYS	3.0
45	DX	74	GLY	3.0
7	AG	61	PHE	3.0
33	DL	50	PHE	3.0
4	AD	146	GLU	3.0
22	DA	1278	C	3.0
46	BY	13	GLU	3.0
2	CB	100	LEU	3.0
46	DY	43	LEU	3.0
7	AG	78	ARG	3.0
9	AI	89	TYR	3.0
30	BI	13	ALA	3.0
48	D0	23	ALA	3.0
22	DA	292	U	3.0
7	AG	16	LYS	3.0
30	BI	71	LYS	3.0
35	DN	5	LYS	3.0
41	DT	81	LYS	3.0
22	BA	2148	G	3.0
22	DA	325	G	3.0
22	DA	859	G	3.0
26	DE	46	GLN	3.0

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Mol	Chain	Res	Type	RSRZ
50	D2	38	GLY	3.0
26	DE	183	PHE	3.0
35	DN	102	PHE	3.0
9	CI	41	GLU	3.0
37	DP	30	TRP	3.0
26	DE	89	PRO	3.0
21	AU	46	ARG	3.0
55	CM	108	ARG	3.0
25	DD	139	SER	3.0
29	DH	65	ALA	3.0
37	DP	94	ALA	3.0
22	DA	2153	C	3.0
46	DY	44	LYS	3.0
25	DD	181	ASP	3.0
28	DG	110	HIS	3.0
33	DL	122	VAL	3.0
29	DH	94	ILE	3.0
46	DY	16	THR	3.0
51	D3	58	ILE	3.0
24	BC	235	GLU	2.9
22	DA	389	G	2.9
22	DA	530	G	2.9
22	DA	1381	G	2.9
22	DA	1538	G	2.9
14	AN	18	LYS	2.9
29	BH	100	ALA	2.9
42	DU	63	ALA	2.9
48	D0	20	ALA	2.9
32	DK	32	TYR	2.9
1	AA	1441	A	2.9
22	DA	2142	A	2.9
53	CA	1271	A	2.9
24	DC	234	GLY	2.9
22	DA	1052	C	2.9
22	DA	1306	C	2.9
6	CF	39	LEU	2.9
28	DG	151	ARG	2.9
34	DM	16	ARG	2.9
36	DO	26	LEU	2.9
38	DQ	27	ARG	2.9
53	CA	950	U	2.9
21	CU	23	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
34	DM	72	PRO	2.9
26	DE	86	ALA	2.9
41	DT	23	ALA	2.9
25	DD	145	SER	2.9
42	DU	19	GLY	2.9
22	DA	1271	G	2.9
53	CA	1310	G	2.9
30	DI	108	ILE	2.9
26	DE	157	LEU	2.9
53	CA	1441	A	2.9
54	CG	46	LEU	2.9
25	DD	8	LYS	2.9
28	DG	83	THR	2.9
31	DJ	10	THR	2.9
40	DS	16	LYS	2.9
45	DX	22	ASN	2.9
5	CE	115	GLU	2.9
20	AT	6	ALA	2.9
53	CA	995	C	2.9
3	AC	167	TYR	2.9
9	CI	57	VAL	2.9
54	CG	5	VAL	2.9
17	AQ	19	SER	2.9
20	CT	5	SER	2.9
30	DI	51	GLY	2.9
54	CG	44	SER	2.9
55	CM	87	GLY	2.9
32	DK	29	HIS	2.9
36	DO	100	HIS	2.9
40	DS	75	PHE	2.9
15	AO	16	ARG	2.9
40	DS	4	ILE	2.9
45	DX	32	LEU	2.9
14	AN	53	ASP	2.9
25	DD	200	ASP	2.9
41	DT	33	LYS	2.9
12	AL	4	ASN	2.9
35	DN	70	THR	2.9
22	DA	205	G	2.9
22	DA	2157	G	2.9
22	BA	2602	A	2.9
22	DA	244	A	2.9

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Mol	Chain	Res	Type	RSRZ
22	DA	443	A	2.9
22	BA	2145	C	2.9
22	DA	436	C	2.9
22	DA	1348	C	2.9
53	CA	1364	U	2.9
55	CM	85	TYR	2.9
19	CS	73	PHE	2.9
26	DE	49	ARG	2.9
38	DQ	29	ARG	2.9
44	DW	78	PHE	2.9
14	CN	99	SER	2.9
28	BG	1	SER	2.9
30	BI	78	LEU	2.9
42	DU	99	SER	2.9
46	DY	54	LYS	2.9
21	CU	51	ALA	2.9
54	CG	63	VAL	2.9
32	DK	68	GLY	2.9
33	DL	60	ARG	2.9
19	CS	28	LYS	2.9
22	DA	1634	A	2.9
22	DA	2333	A	2.9
52	D4	8	LYS	2.9
31	DJ	76	HIS	2.8
1	AA	1030	U	2.8
24	DC	258	SER	2.8
22	BA	1072	C	2.8
52	D4	35	GLN	2.8
10	CJ	75	ASP	2.8
36	DO	2	ASP	2.8
58	DF	53	ALA	2.8
35	DN	57	THR	2.8
51	D3	5	THR	2.8
58	DF	17	THR	2.8
54	CG	57	GLU	2.8
24	DC	43	ASN	2.8
41	DT	76	ARG	2.8
14	CN	75	LYS	2.8
24	DC	35	LYS	2.8
26	DE	174	GLY	2.8
35	DN	98	LEU	2.8
46	DY	37	LEU	2.8

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Mol	Chain	Res	Type	RSRZ
19	AS	13	HIS	2.8
3	CC	40	GLN	2.8
24	DC	37	SER	2.8
39	DR	6	GLN	2.8
51	D3	47	ALA	2.8
22	DA	12	U	2.8
22	DA	259	G	2.8
22	DA	2141	G	2.8
22	DA	2402	U	2.8
24	DC	226	PRO	2.8
53	CA	1241	G	2.8
55	CM	103	THR	2.8
9	CI	54	VAL	2.8
22	DA	1092	C	2.8
30	BI	57	VAL	2.8
6	CF	42	TRP	2.8
7	AG	96	ASN	2.8
15	CO	47	LYS	2.8
26	DE	158	PHE	2.8
33	DL	57	LEU	2.8
31	DJ	92	MET	2.8
33	DL	73	ILE	2.8
35	DN	7	GLY	2.8
38	DQ	42	GLY	2.8
58	DF	130	GLY	2.8
33	DL	97	ALA	2.8
51	D3	36	ALA	2.8
38	DQ	2	ARG	2.8
9	CI	46	VAL	2.8
25	DD	26	VAL	2.8
10	CJ	60	ASP	2.8
26	DE	17	THR	2.8
30	BI	139	VAL	2.8
42	DU	9	GLU	2.8
22	DA	276	U	2.8
22	DA	2743	U	2.8
24	DC	29	PHE	2.8
38	DQ	82	LEU	2.8
35	DN	62	ASN	2.8
54	CG	17	PHE	2.8
22	DA	333	G	2.8
22	DA	2045	C	2.8

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Mol	Chain	Res	Type	RSRZ
22	DA	2140	G	2.8
22	DA	2678	C	2.8
54	CG	43	TYR	2.8
46	DY	61	ALA	2.8
28	DG	169	ARG	2.8
35	DN	46	ARG	2.8
7	AG	82	SER	2.8
9	CI	114	LYS	2.8
9	CI	115	VAL	2.8
39	DR	96	VAL	2.8
52	D4	17	VAL	2.8
55	CM	75	SER	2.8
9	CI	27	ILE	2.8
28	DG	140	ILE	2.8
33	DL	81	ASP	2.8
44	DW	55	ASP	2.8
52	D4	20	ASP	2.8
2	CB	154	GLY	2.8
27	BF	129	MET	2.8
58	DF	123	GLY	2.8
1	AA	209	U	2.8
22	DA	94	A	2.8
1	AA	1031	C	2.8
21	AU	25	ALA	2.8
25	BD	209	ALA	2.8
26	DE	50	ALA	2.8
29	DH	140	ALA	2.8
44	DW	62	ALA	2.8
28	DG	85	LYS	2.8
22	DA	619	G	2.8
29	BH	108	VAL	2.8
29	DH	130	VAL	2.8
44	BW	50	VAL	2.8
14	AN	54	SER	2.8
4	AD	27	ILE	2.8
19	AS	48	ILE	2.8
50	D2	18	PHE	2.7
32	DK	1	MET	2.7
44	BW	75	ASN	2.7
32	DK	18	ARG	2.7
41	DT	66	LYS	2.7
22	DA	529	A	2.7

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Mol	Chain	Res	Type	RSRZ
22	DA	1039	A	2.7
38	BQ	87	VAL	2.7
39	DR	72	VAL	2.7
14	CN	50	LEU	2.7
9	CI	13	SER	2.7
22	DA	246	C	2.7
22	DA	268	C	2.7
25	DD	118	PHE	2.7
35	DN	113	ILE	2.7
37	DP	1	SER	2.7
44	DW	25	PHE	2.7
31	DJ	83	GLY	2.7
44	DW	7	GLY	2.7
45	DX	8	GLY	2.7
2	CB	87	ASP	2.7
22	DA	215	G	2.7
22	DA	388	G	2.7
22	DA	1124	G	2.7
22	DA	1300	G	2.7
6	AF	52	ASN	2.7
8	CH	20	ASN	2.7
16	AP	80	LYS	2.7
26	DE	130	LYS	2.7
44	DW	11	ASN	2.7
54	CG	16	LYS	2.7
25	DD	140	HIS	2.7
40	DS	32	ALA	2.7
4	AD	35	GLN	2.7
17	CQ	58	VAL	2.7
3	CC	143	LEU	2.7
7	AG	22	LEU	2.7
26	DE	118	LEU	2.7
38	DQ	94	LEU	2.7
48	D0	42	ILE	2.7
53	CA	723	U	2.7
30	BI	129	GLU	2.7
22	DA	1808	A	2.7
24	BC	234	GLY	2.7
49	D1	21	THR	2.7
19	CS	2	ARG	2.7
25	DD	114	LYS	2.7
29	DH	128	HIS	2.7

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Mol	Chain	Res	Type	RSRZ
30	DI	1	ALA	2.7
37	DP	41	ALA	2.7
31	DJ	73	VAL	2.7
41	DT	31	VAL	2.7
14	CN	56	PRO	2.7
22	BA	1177	G	2.7
22	BA	2140	G	2.7
22	DA	363	G	2.7
22	DA	379	G	2.7
22	DA	775	G	2.7
22	DA	1622	G	2.7
49	D1	40	PRO	2.7
53	CA	108	G	2.7
58	DF	153	ILE	2.7
28	BG	169	ARG	2.7
54	CG	33	GLY	2.7
46	BY	9	LYS	2.7
50	D2	15	SER	2.7
22	BA	1180	U	2.7
22	DA	234	U	2.7
22	DA	2092	U	2.7
22	DA	2298	A	2.7
26	DE	45	ALA	2.7
39	DR	103	ALA	2.7
12	CL	32	VAL	2.7
24	DC	76	VAL	2.7
30	DI	10	LEU	2.7
22	BA	140	C	2.7
33	DL	64	PHE	2.7
5	CE	150	GLU	2.7
9	CI	35	GLU	2.7
14	AN	11	LYS	2.7
31	DJ	9	GLU	2.7
19	CS	47	THR	2.7
41	DT	22	THR	2.7
54	CG	132	THR	2.7
22	DA	411	G	2.7
22	DA	468	G	2.7
22	DA	1202	G	2.7
22	DA	1450	G	2.7
26	DE	78	TRP	2.7
7	AG	149	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
14	CN	14	ALA	2.7
29	DH	39	ALA	2.7
46	BY	3	ALA	2.7
22	BA	2585	U	2.7
38	DQ	38	VAL	2.7
20	CT	69	ASN	2.7
10	CJ	8	ILE	2.6
22	DA	221	A	2.6
22	DA	532	A	2.6
22	DA	1322	A	2.6
26	DE	177	PRO	2.6
40	DS	86	MET	2.6
47	DZ	29	ARG	2.6
58	DF	19	PHE	2.6
25	DD	157	LYS	2.6
45	DX	75	GLU	2.6
51	D3	52	GLY	2.6
22	BA	1170	C	2.6
22	DA	61	C	2.6
22	DA	509	C	2.6
25	DD	91	THR	2.6
2	AB	156	LEU	2.6
9	CI	53	LEU	2.6
25	DD	60	VAL	2.6
26	DE	15	SER	2.6
26	DE	72	SER	2.6
29	DH	12	LEU	2.6
31	DJ	11	VAL	2.6
51	D3	57	VAL	2.6
56	CP	20	VAL	2.6
5	CE	59	ILE	2.6
14	CN	53	ASP	2.6
22	BA	2110	G	2.6
22	DA	2046	G	2.6
2	AB	135	MET	2.6
30	BI	2	LYS	2.6
37	BP	65	ASN	2.6
40	DS	84	ARG	2.6
22	DA	2321	U	2.6
22	DA	2449	U	2.6
30	BI	11	GLN	2.6
44	DW	39	GLN	2.6

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Mol	Chain	Res	Type	RSRZ
51	D3	38	LYS	2.6
22	DA	53	A	2.6
22	DA	800	A	2.6
22	DA	1237	A	2.6
22	DA	1274	A	2.6
54	CG	39	GLU	2.6
24	DC	222	THR	2.6
52	D4	11	CYS	2.6
20	CT	85	LEU	2.6
50	D2	10	LEU	2.6
54	CG	12	LEU	2.6
22	DA	455	C	2.6
22	DA	584	C	2.6
22	DA	1574	C	2.6
22	DA	1615	C	2.6
22	DA	2827	C	2.6
26	DE	75	SER	2.6
53	CA	207	C	2.6
53	CA	1397	C	2.6
9	CI	129	ARG	2.6
12	CL	8	ARG	2.6
14	AN	12	ARG	2.6
24	DC	48	ILE	2.6
40	DS	99	ARG	2.6
24	DC	239	PHE	2.6
50	D2	26	ASN	2.6
33	DL	22	GLY	2.6
22	BA	2139	U	2.6
22	DA	29	U	2.6
53	CA	1315	U	2.6
22	DA	396	G	2.6
22	DA	748	G	2.6
4	AD	36	ALA	2.6
5	CE	122	VAL	2.6
26	DE	28	VAL	2.6
28	DG	8	VAL	2.6
31	BJ	20	ALA	2.6
38	DQ	34	ALA	2.6
22	DA	294	A	2.6
22	DA	911	A	2.6
22	DA	1205	A	2.6
29	DH	27	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
32	BK	71	ARG	2.6
41	DT	64	LYS	2.6
53	CA	974	A	2.6
18	AR	20	ILE	2.6
33	DL	42	SER	2.6
47	DZ	52	PHE	2.6
22	DA	1102	C	2.6
22	DA	1270	C	2.6
22	DA	1319	C	2.6
22	DA	2150	C	2.6
28	DG	87	GLN	2.6
53	CA	1352	C	2.6
17	CQ	14	ASP	2.6
41	DT	79	ASP	2.6
56	CP	55	ASP	2.6
33	DL	31	GLY	2.6
26	DE	133	LEU	2.6
37	DP	67	GLU	2.6
47	DZ	36	GLU	2.6
14	CN	44	VAL	2.6
21	AU	52	VAL	2.6
33	DL	116	VAL	2.6
39	DR	75	VAL	2.6
22	DA	387	U	2.6
22	DA	1224	U	2.6
25	DD	125	TRP	2.6
25	DD	151	THR	2.6
48	D0	25	THR	2.6
4	AD	21	LYS	2.6
48	B0	56	LYS	2.6
11	CK	115	ILE	2.6
29	BH	80	ILE	2.6
56	CP	57	ILE	2.6
5	CE	110	MET	2.6
22	DA	258	G	2.6
22	DA	583	G	2.6
22	DA	1266	G	2.6
22	DA	1382	G	2.6
22	DA	2010	G	2.6
22	DA	2341	G	2.6
51	D3	45	PRO	2.6
22	BA	1098	A	2.6

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Mol	Chain	Res	Type	RSRZ
22	DA	941	A	2.6
22	DA	1269	A	2.6
22	DA	1805	A	2.6
46	DY	36	GLN	2.6
24	DC	40	GLY	2.6
40	DS	94	ASP	2.6
41	DT	65	GLY	2.6
46	DY	35	GLY	2.6
42	DU	39	ASN	2.6
9	AI	62	LEU	2.6
15	CO	86	LEU	2.6
40	DS	33	LEU	2.6
40	DS	97	LEU	2.6
55	CM	18	LEU	2.6
22	DA	444	C	2.6
22	DA	671	C	2.6
22	DA	679	C	2.6
22	DA	791	C	2.6
24	DC	34	GLU	2.6
24	DC	81	GLU	2.6
5	CE	17	VAL	2.6
29	BH	103	VAL	2.6
39	DR	38	VAL	2.6
42	DU	27	VAL	2.6
50	D2	19	ARG	2.6
50	D2	21	ARG	2.6
51	D3	49	VAL	2.6
9	CI	128	LYS	2.6
24	DC	252	LYS	2.6
33	DL	84	LYS	2.6
2	CB	150	ILE	2.5
30	BI	54	ILE	2.5
55	CM	38	ILE	2.5
26	DE	85	PHE	2.5
1	AA	991	U	2.5
22	BA	139	U	2.5
22	DA	2245	U	2.5
22	DA	2296	U	2.5
9	CI	109	GLN	2.5
54	CG	58	LEU	2.5
22	DA	446	G	2.5
22	DA	1038	G	2.5

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Mol	Chain	Res	Type	RSRZ
22	DA	2029	G	2.5
28	DG	166	GLU	2.5
29	BH	142	VAL	2.5
29	DH	9	VAL	2.5
39	DR	26	ASP	2.5
26	DE	155	GLU	2.5
41	DT	56	GLU	2.5
42	DU	61	GLU	2.5
51	D3	2	LYS	2.5
25	DD	112	THR	2.5
41	DT	60	THR	2.5
22	BA	143	C	2.5
22	DA	145	C	2.5
22	DA	610	C	2.5
22	DA	1118	C	2.5
22	DA	1556	C	2.5
22	DA	1764	C	2.5
25	DD	156	PHE	2.5
29	DH	132	PHE	2.5
30	BI	53	PRO	2.5
51	D3	25	HIS	2.5
45	DX	4	CYS	2.5
2	AB	96	LEU	2.5
19	AS	3	SER	2.5
22	DA	62	U	2.5
22	DA	790	U	2.5
22	DA	2149	U	2.5
22	DA	2299	U	2.5
22	DA	2713	U	2.5
26	DE	41	GLN	2.5
29	DH	107	GLY	2.5
38	DQ	25	GLY	2.5
38	DQ	81	GLY	2.5
54	CG	119	LEU	2.5
56	CP	10	GLY	2.5
24	DC	255	LYS	2.5
26	DE	74	LYS	2.5
35	DN	40	LYS	2.5
32	DK	69	VAL	2.5
33	DL	46	VAL	2.5
40	DS	20	VAL	2.5
3	CC	7	ASN	2.5

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Mol	Chain	Res	Type	RSRZ
9	AI	15	ALA	2.5
29	BH	109	GLU	2.5
44	DW	48	ALA	2.5
45	DX	23	ALA	2.5
29	DH	80	ILE	2.5
24	DC	251	THR	2.5
35	DN	53	THR	2.5
45	DX	47	THR	2.5
24	BC	239	PHE	2.5
30	BI	68	PHE	2.5
22	DA	354	A	2.5
22	DA	466	A	2.5
22	DA	572	A	2.5
22	DA	947	A	2.5
22	DA	1031	G	2.5
8	CH	5	PRO	2.5
8	CH	127	TYR	2.5
37	DP	21	PRO	2.5
58	DF	127	TYR	2.5
2	CB	97	GLY	2.5
9	CI	112	ARG	2.5
20	CT	68	LYS	2.5
22	DA	531	C	2.5
22	DA	2021	C	2.5
22	DA	2047	C	2.5
22	DA	2347	C	2.5
22	DA	2666	C	2.5
33	DL	21	ARG	2.5
39	DR	24	LYS	2.5
41	DT	40	LYS	2.5
44	DW	71	LYS	2.5
46	DY	60	LYS	2.5
53	CA	381	C	2.5
2	CB	146	SER	2.5
14	CN	65	GLN	2.5
35	DN	18	GLN	2.5
54	CG	19	SER	2.5
9	CI	15	ALA	2.5
24	DC	30	ALA	2.5
36	DO	14	ALA	2.5
22	DA	92	U	2.5
22	DA	1201	U	2.5

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Mol	Chain	Res	Type	RSRZ
26	DE	51	GLU	2.5
2	CB	110	ILE	2.5
3	CC	119	ILE	2.5
31	DJ	118	MET	2.5
47	DZ	9	THR	2.5
49	D1	22	THR	2.5
55	CM	107	THR	2.5
10	CJ	79	PRO	2.5
10	CJ	90	LEU	2.5
13	AM	82	LEU	2.5
14	AN	68	ARG	2.5
21	AU	53	LYS	2.5
24	DC	268	ARG	2.5
29	BH	62	LEU	2.5
31	DJ	2	LYS	2.5
44	BW	45	HIS	2.5
19	CS	7	GLY	2.5
22	DA	101	A	2.5
22	DA	447	A	2.5
22	DA	1745	A	2.5
22	DA	2336	A	2.5
22	DA	2820	A	2.5
33	DL	20	GLY	2.5
33	DL	34	GLY	2.5
35	DN	105	GLY	2.5
7	AG	8	GLN	2.5
28	BG	16	VAL	2.5
31	BJ	73	VAL	2.5
49	D1	11	VAL	2.5
5	CE	34	ALA	2.5
22	DA	107	G	2.5
22	DA	214	G	2.5
22	DA	798	G	2.5
22	DA	1051	G	2.5
22	DA	1115	G	2.5
22	DA	1245	G	2.5
22	DA	1452	G	2.5
41	DT	17	SER	2.5
34	DM	9	PHE	2.5
44	DW	59	PHE	2.5
17	AQ	6	THR	2.5
26	DE	84	THR	2.5

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Mol	Chain	Res	Type	RSRZ
33	DL	5	THR	2.5
4	CD	57	LYS	2.5
32	DK	67	LYS	2.5
41	DT	82	LYS	2.5
14	CN	73	LEU	2.5
19	CS	75	PRO	2.5
39	DR	22	LEU	2.5
39	DR	25	LEU	2.5
39	DR	52	PRO	2.5
9	CI	73	GLY	2.5
52	D4	22	VAL	2.5
38	DQ	41	ALA	2.4
35	DN	100	CYS	2.4
52	D4	14	CYS	2.4
55	CM	52	ILE	2.4
22	DA	222	A	2.4
22	DA	675	A	2.4
22	DA	1090	A	2.4
22	DA	1598	A	2.4
22	DA	1614	A	2.4
22	DA	1641	A	2.4
22	DA	2860	A	2.4
41	DT	25	GLU	2.4
15	CO	88	ARG	2.4
20	CT	42	ASP	2.4
26	DE	91	ASP	2.4
26	DE	99	LYS	2.4
26	DE	162	ARG	2.4
34	DM	127	LYS	2.4
39	DR	79	ARG	2.4
42	DU	68	ASN	2.4
46	DY	15	ASN	2.4
50	D2	37	LYS	2.4
54	CG	108	ARG	2.4
22	BA	141	G	2.4
22	DA	180	G	2.4
22	DA	438	G	2.4
22	DA	1320	C	2.4
22	DA	1857	G	2.4
22	DA	2152	G	2.4
35	DN	37	THR	2.4
22	DA	2755	C	2.4

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Mol	Chain	Res	Type	RSRZ
53	CA	204	G	2.4
53	CA	457	G	2.4
53	CA	877	G	2.4
53	CA	1312	G	2.4
12	AL	37	TYR	2.4
18	AR	63	TYR	2.4
22	BA	1078	U	2.4
22	DA	137	U	2.4
22	DA	150	U	2.4
4	AD	23	GLY	2.4
5	AE	39	GLY	2.4
7	AG	81	GLY	2.4
10	CJ	57	VAL	2.4
25	DD	153	GLY	2.4
34	DM	15	GLY	2.4
30	DI	75	ALA	2.4
31	DJ	136	GLN	2.4
54	CG	126	ALA	2.4
10	CJ	45	ARG	2.4
42	DU	96	LYS	2.4
47	DZ	24	LEU	2.4
26	DE	60	TRP	2.4
26	DE	97	ASN	2.4
1	AA	412	A	2.4
22	DA	1275	A	2.4
22	DA	1608	A	2.4
22	DA	1626	A	2.4
26	DE	154	ASP	2.4
34	DM	70	ASP	2.4
38	DQ	96	ASP	2.4
3	CC	189	HIS	2.4
17	CQ	9	GLY	2.4
38	DQ	44	TYR	2.4
3	CC	161	ILE	2.4
18	AR	25	ILE	2.4
22	BA	1092	C	2.4
22	DA	564	C	2.4
22	DA	266	G	2.4
22	DA	326	G	2.4
22	DA	390	U	2.4
22	DA	1310	G	2.4
22	DA	1326	U	2.4

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Mol	Chain	Res	Type	RSRZ
22	DA	2391	G	2.4
22	DA	2622	U	2.4
24	DC	103	ILE	2.4
29	BH	59	ALA	2.4
36	DO	40	ILE	2.4
49	D1	51	ALA	2.4
41	BT	24	MET	2.4
6	CF	53	LYS	2.4
12	AL	13	ARG	2.4
39	DR	21	ARG	2.4
41	DT	4	GLU	2.4
40	DS	101	SER	2.4
42	DU	67	SER	2.4
40	DS	3	THR	2.4
56	CP	66	THR	2.4
5	CE	127	TYR	2.4
31	BJ	44	TYR	2.4
34	DM	83	GLY	2.4
10	CJ	34	ALA	2.4
58	DF	54	ALA	2.4
22	DA	422	A	2.4
22	DA	654	A	2.4
22	DA	2184	A	2.4
24	DC	162	GLN	2.4
24	DC	180	MET	2.4
29	DH	116	ARG	2.4
35	DN	35	LYS	2.4
38	DQ	14	LYS	2.4
52	D4	12	ARG	2.4
30	BI	66	PHE	2.4
2	CB	144	GLU	2.4
22	BA	885	C	2.4
22	BA	2149	U	2.4
22	DA	267	C	2.4
22	DA	392	U	2.4
22	DA	982	C	2.4
22	DA	1607	C	2.4
29	DH	15	LEU	2.4
9	AI	127	SER	2.4
22	BA	277	G	2.4
22	DA	45	G	2.4
22	DA	187	G	2.4

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Mol	Chain	Res	Type	RSRZ
53	CA	971	G	2.4
55	CM	84	CYS	2.4
12	CL	3	VAL	2.4
24	DC	164	VAL	2.4
29	BH	96	THR	2.4
42	DU	49	PRO	2.4
47	DZ	7	THR	2.4
25	DD	195	GLY	2.4
26	DE	168	ASP	2.4
29	DH	135	HIS	2.4
31	DJ	47	HIS	2.4
10	AJ	76	ILE	2.4
16	AP	4	ILE	2.4
20	CT	40	ALA	2.4
25	DD	192	ALA	2.4
37	DP	90	ALA	2.4
40	DS	21	ALA	2.4
2	CB	27	LYS	2.4
6	CF	91	ARG	2.4
35	DN	22	ARG	2.4
37	DP	100	ARG	2.4
41	DT	6	ARG	2.4
42	DU	53	GLN	2.4
42	BU	86	PHE	2.4
5	CE	35	LEU	2.4
6	CF	74	LEU	2.4
12	CL	6	LEU	2.4
26	DE	3	LEU	2.4
26	DE	12	LEU	2.4
46	DY	28	LEU	2.4
10	CJ	66	GLU	2.4
22	DA	125	A	2.4
22	DA	866	A	2.4
22	DA	1307	A	2.4
22	DA	1365	A	2.4
53	CA	1311	A	2.4
36	DO	91	SER	2.4
10	CJ	41	PRO	2.4
29	DH	103	VAL	2.4
45	DX	11	PRO	2.4
22	DA	336	C	2.3
22	DA	796	C	2.3

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Mol	Chain	Res	Type	RSRZ
44	BW	42	THR	2.3
53	CA	1325	C	2.3
30	DI	15	GLY	2.3
12	AL	17	LYS	2.3
14	CN	43	ALA	2.3
14	CN	97	LYS	2.3
20	AT	15	LYS	2.3
21	AU	47	ALA	2.3
33	DL	13	LYS	2.3
33	DL	58	TYR	2.3
33	DL	77	ILE	2.3
35	DN	97	ILE	2.3
36	DO	11	ALA	2.3
40	DS	48	LYS	2.3
41	BT	2	ILE	2.3
45	DX	35	HIS	2.3
49	D1	47	ILE	2.3
22	BA	1171	G	2.3
22	DA	491	G	2.3
22	DA	1339	G	2.3
22	DA	1653	G	2.3
22	DA	2414	G	2.3
22	DA	2621	G	2.3
53	CA	203	G	2.3
53	CA	1272	G	2.3
8	CH	31	LEU	2.3
46	BY	6	LEU	2.3
55	CM	51	GLN	2.3
58	DF	62	GLN	2.3
17	CQ	77	VAL	2.3
42	DU	33	VAL	2.3
14	AN	56	PRO	2.3
22	DA	196	A	2.3
3	CC	191	THR	2.3
9	CI	76	GLY	2.3
22	DA	1067	A	2.3
22	DA	1302	A	2.3
22	DA	1347	A	2.3
22	DA	2154	A	2.3
45	DX	1	SER	2.3
31	DJ	12	LYS	2.3
53	CA	101	A	2.3

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Mol	Chain	Res	Type	RSRZ
53	CA	461	A	2.3
28	DG	162	ARG	2.3
29	BH	81	ALA	2.3
29	DH	143	ILE	2.3
55	CM	89	ARG	2.3
30	DI	43	ALA	2.3
34	DM	116	ALA	2.3
50	D2	23	ALA	2.3
1	AA	723	U	2.3
22	DA	50	U	2.3
41	DT	84	TYR	2.3
22	DA	11	C	2.3
22	DA	456	C	2.3
30	BI	95	ASP	2.3
53	CA	222	C	2.3
9	CI	49	GLN	2.3
25	DD	82	PHE	2.3
54	CG	123	LEU	2.3
10	AJ	78	GLU	2.3
22	DA	230	G	2.3
22	DA	696	G	2.3
22	DA	1093	G	2.3
22	DA	1642	G	2.3
22	DA	2238	G	2.3
22	DA	2599	G	2.3
37	DP	85	VAL	2.3
53	CA	104	G	2.3
53	CA	1255	G	2.3
52	D4	9	LYS	2.3
20	CT	23	ARG	2.3
19	CS	48	ILE	2.3
20	CT	41	GLY	2.3
24	BC	236	GLY	2.3
24	DC	54	GLY	2.3
38	BQ	86	SER	2.3
44	DW	60	ALA	2.3
54	CG	114	SER	2.3
24	DC	231	HIS	2.3
18	AR	50	TYR	2.3
14	AN	50	LEU	2.3
24	DC	204	LEU	2.3
34	DM	88	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
1	AA	80	A	2.3
22	BA	1073	A	2.3
22	DA	233	A	2.3
22	DA	945	A	2.3
22	DA	1246	A	2.3
53	CA	223	A	2.3
53	CA	468	A	2.3
30	DI	120	ASP	2.3
22	DA	2817	U	2.3
46	DY	25	GLN	2.3
3	AC	169	GLU	2.3
24	DC	179	GLU	2.3
32	DK	4	GLU	2.3
46	DY	59	GLU	2.3
12	AL	43	LYS	2.3
22	DA	257	C	2.3
22	DA	517	C	2.3
24	DC	244	VAL	2.3
28	DG	161	VAL	2.3
29	BH	134	VAL	2.3
31	DJ	48	VAL	2.3
36	DO	3	LYS	2.3
53	CA	330	C	2.3
39	DR	13	ARG	2.3
6	AF	51	ILE	2.3
24	DC	243	PRO	2.3
25	DD	14	ILE	2.3
33	DL	8	PRO	2.3
36	DO	87	ILE	2.3
49	D1	4	ILE	2.3
52	D4	38	GLY	2.3
55	CM	23	GLY	2.3
55	CM	37	GLY	2.3
20	AT	62	ALA	2.3
41	DT	61	LEU	2.3
56	CP	54	LEU	2.3
22	BA	2141	G	2.3
22	DA	308	G	2.3
22	DA	664	G	2.3
22	DA	836	G	2.3
22	DA	942	G	2.3
22	DA	1449	G	2.3

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Mol	Chain	Res	Type	RSRZ
22	DA	2505	G	2.3
45	DX	28	PHE	2.3
20	CT	12	GLN	2.3
28	BG	165	ASP	2.3
9	CI	113	LYS	2.3
26	DE	47	LYS	2.3
28	DG	157	LYS	2.3
34	DM	84	LYS	2.3
8	AH	90	GLU	2.3
10	AJ	45	ARG	2.3
17	AQ	25	GLU	2.3
22	BA	2142	A	2.3
22	DA	38	A	2.3
22	DA	990	A	2.3
26	DE	83	VAL	2.3
54	CG	142	ARG	2.3
22	DA	1217	U	2.3
22	DA	1396	U	2.3
22	DA	1624	U	2.3
22	DA	2265	U	2.3
8	CH	92	PRO	2.3
11	CK	123	PRO	2.3
32	DK	2	ILE	2.3
36	DO	8	ILE	2.3
38	DQ	64	ILE	2.3
10	CJ	12	ALA	2.3
25	DD	69	ALA	2.3
28	DG	58	ALA	2.3
55	CM	93	GLY	2.3
22	DA	184	C	2.3
22	DA	623	C	2.3
22	DA	678	C	2.3
22	DA	961	C	2.3
53	CA	1322	C	2.3
10	AJ	102	LEU	2.3
14	CN	26	LEU	2.3
19	CS	70	LEU	2.3
24	DC	242	HIS	2.3
28	DG	35	THR	2.3
2	AB	29	PHE	2.3
37	DP	42	PHE	2.3
25	DD	159	LYS	2.3

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Mol	Chain	Res	Type	RSRZ
29	DH	89	LYS	2.3
34	DM	118	LYS	2.3
41	DT	19	LYS	2.3
48	D0	6	LYS	2.3
3	AC	130	ARG	2.3
29	BH	27	ARG	2.3
5	CE	113	VAL	2.3
19	CS	26	ASP	2.3
24	DC	64	VAL	2.3
39	BR	55	ASP	2.3
54	CG	79	VAL	2.3
4	CD	171	GLU	2.2
43	DV	69	GLU	2.2
55	CM	65	GLU	2.2
22	DA	858	G	2.2
22	DA	1037	G	2.2
26	DE	149	ILE	2.2
8	AH	9	MET	2.2
24	DC	41	GLY	2.2
25	DD	87	GLY	2.2
25	DD	147	GLY	2.2
43	DV	22	ALA	2.2
5	CE	75	LEU	2.2
22	BA	892	A	2.2
22	BA	2155	U	2.2
22	DA	811	U	2.2
22	DA	1247	A	2.2
28	BG	116	LEU	2.2
30	DI	78	LEU	2.2
53	CA	208	U	2.2
53	CA	1240	U	2.2
34	DM	24	THR	2.2
36	DO	92	PHE	2.2
9	CI	119	LYS	2.2
12	AL	14	LYS	2.2
19	CS	3	SER	2.2
35	BN	119	SER	2.2
38	DQ	40	LYS	2.2
1	AA	841	C	2.2
9	AI	122	ARG	2.2
22	BA	2150	C	2.2
22	DA	484	C	2.2

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Mol	Chain	Res	Type	RSRZ
22	DA	1575	C	2.2
22	DA	1612	C	2.2
3	AC	99	GLN	2.2
10	CJ	51	VAL	2.2
34	DM	67	VAL	2.2
36	DO	103	VAL	2.2
52	D4	3	VAL	2.2
2	CB	153	MET	2.2
12	CL	1	ALA	2.2
14	CN	45	LEU	2.2
26	DE	128	ALA	2.2
31	DJ	117	ALA	2.2
41	DT	8	LEU	2.2
44	DW	20	LEU	2.2
52	B4	29	ALA	2.2
41	DT	80	TRP	2.2
21	AU	42	THR	2.2
22	DA	75	G	2.2
22	DA	277	G	2.2
22	DA	774	G	2.2
22	DA	1303	G	2.2
22	DA	2409	G	2.2
29	BH	42	LYS	2.2
40	DS	9	HIS	2.2
46	DY	2	LYS	2.2
48	D0	41	HIS	2.2
53	CA	1276	G	2.2
12	CL	37	TYR	2.2
31	DJ	53	TYR	2.2
5	AE	21	SER	2.2
5	CE	148	SER	2.2
22	BA	2886	A	2.2
22	DA	793	A	2.2
22	DA	2058	A	2.2
36	DO	52	SER	2.2
38	DQ	86	SER	2.2
40	DS	81	SER	2.2
52	D4	6	SER	2.2
53	CA	109	A	2.2
53	CA	996	A	2.2
56	CP	24	SER	2.2
25	DD	122	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
44	DW	70	VAL	2.2
33	DL	38	GLN	2.2
25	DD	185	ASN	2.2
28	BG	37	ASN	2.2
17	CQ	59	GLU	2.2
19	CS	10	ILE	2.2
29	DH	149	GLU	2.2
22	DA	209	C	2.2
29	DH	10	ALA	2.2
30	DI	79	LEU	2.2
40	DS	34	ASP	2.2
53	CA	1367	C	2.2
3	CC	42	LEU	2.2
8	CH	98	LEU	2.2
8	CH	129	ALA	2.2
10	AJ	87	LEU	2.2
14	CN	51	PRO	2.2
24	DC	108	GLY	2.2
25	DD	209	ALA	2.2
31	DJ	97	PRO	2.2
33	DL	134	ALA	2.2
48	D0	14	MET	2.2
54	CG	45	ALA	2.2
14	AN	22	LYS	2.2
33	DL	39	LYS	2.2
55	CM	26	LYS	2.2
14	CN	41	TRP	2.2
26	DE	61	ARG	2.2
41	DT	73	ARG	2.2
49	B1	43	ARG	2.2
8	CH	54	THR	2.2
24	DC	61	TYR	2.2
19	AS	37	SER	2.2
30	DI	87	SER	2.2
32	DK	75	SER	2.2
1	AA	91	U	2.2
1	AA	1212	U	2.2
1	AA	1364	U	2.2
22	DA	18	U	2.2
22	DA	100	U	2.2
22	DA	1599	U	2.2
22	DA	1971	U	2.2

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Mol	Chain	Res	Type	RSRZ
22	DA	2903	U	2.2
53	CA	261	U	2.2
9	CI	71	ILE	2.2
29	BH	72	ILE	2.2
42	DU	57	ILE	2.2
12	CL	80	LEU	2.2
17	CQ	25	GLU	2.2
19	CS	65	MET	2.2
22	BA	613	A	2.2
22	BA	1090	A	2.2
22	BA	2133	G	2.2
22	DA	68	G	2.2
22	DA	359	G	2.2
22	DA	505	A	2.2
22	DA	561	G	2.2
22	DA	1309	G	2.2
26	DE	144	GLU	2.2
29	DH	127	GLU	2.2
53	CA	205	A	2.2
53	CA	1236	A	2.2
53	CA	1242	G	2.2
46	DY	42	LEU	2.2
53	CA	1368	A	2.2
55	CM	82	LEU	2.2
19	CS	25	GLY	2.2
21	AU	40	PRO	2.2
24	DC	111	ALA	2.2
26	DE	190	ALA	2.2
40	DS	63	GLY	2.2
46	DY	62	GLY	2.2
54	CG	70	PRO	2.2
14	AN	32	ASP	2.2
27	BF	162	ASP	2.2
32	DK	54	LYS	2.2
45	BX	76	LYS	2.2
49	D1	9	LYS	2.2
54	CG	113	LYS	2.2
55	CM	67	ASP	2.2
9	CI	122	ARG	2.2
26	DE	23	PHE	2.2
36	DO	97	PHE	2.2
22	DA	47	C	2.2

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Mol	Chain	Res	Type	RSRZ
22	DA	130	C	2.2
22	DA	264	C	2.2
22	DA	2146	C	2.2
53	CA	1520	C	2.2
9	CI	83	THR	2.2
7	AG	86	VAL	2.2
26	DE	35	TYR	2.2
31	DJ	74	TYR	2.2
36	DO	27	VAL	2.2
47	DZ	54	VAL	2.2
10	AJ	101	SER	2.2
26	DE	107	SER	2.2
29	BH	94	ILE	2.2
35	DN	9	GLN	2.2
37	DP	49	ILE	2.2
5	CE	123	LEU	2.2
12	AL	19	ASN	2.2
5	CE	118	GLY	2.2
19	CS	5	LYS	2.2
20	CT	43	LYS	2.2
28	DG	100	ASN	2.2
30	BI	119	ALA	2.2
35	DN	61	ALA	2.2
37	DP	65	ASN	2.2
33	DL	24	GLY	2.2
42	DU	3	LYS	2.2
54	CG	136	LYS	2.2
55	CM	77	LYS	2.2
22	DA	913	U	2.2
22	DA	1460	U	2.2
22	DA	2506	U	2.2
17	CQ	5	ARG	2.2
3	AC	36	PHE	2.2
19	AS	60	PHE	2.2
25	DD	43	ASP	2.2
1	AA	532	A	2.2
22	DA	89	A	2.2
22	DA	1029	A	2.2
53	CA	1252	A	2.2
22	DA	242	G	2.2
22	DA	2444	G	2.2
22	DA	2618	G	2.2

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Mol	Chain	Res	Type	RSRZ
19	CS	61	VAL	2.1
35	DN	48	VAL	2.1
35	DN	60	VAL	2.1
3	CC	41	TYR	2.1
2	CB	66	ILE	2.1
22	DA	41	C	2.1
22	DA	183	C	2.1
22	DA	385	C	2.1
22	DA	1349	C	2.1
22	DA	2145	C	2.1
9	CI	125	GLN	2.1
13	AM	94	LEU	2.1
33	DL	125	LEU	2.1
38	DQ	58	GLN	2.1
41	DT	93	LEU	2.1
45	DX	5	GLN	2.1
2	CB	131	LYS	2.1
5	CE	21	SER	2.1
25	DD	116	LYS	2.1
49	D1	36	LYS	2.1
54	CG	34	LYS	2.1
5	CE	62	ALA	2.1
55	CM	45	SER	2.1
9	CI	111	GLU	2.1
38	DQ	22	GLY	2.1
50	D2	39	ARG	2.1
50	D2	41	ARG	2.1
33	DL	4	ASN	2.1
9	CI	38	PHE	2.1
20	CT	30	PHE	2.1
22	DA	1249	U	2.1
22	DA	1468	U	2.1
22	DA	2797	U	2.1
28	BG	15	ASP	2.1
53	CA	1308	U	2.1
2	CB	95	TRP	2.1
9	AI	66	VAL	2.1
20	CT	67	HIS	2.1
30	BI	138	VAL	2.1
40	DS	105	VAL	2.1
3	CC	167	TYR	2.1
22	DA	472	A	2.1

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Mol	Chain	Res	Type	RSRZ
22	DA	1103	A	2.1
38	DQ	31	TYR	2.1
15	CO	55	LEU	2.1
1	AA	976	G	2.1
8	CH	2	MET	2.1
22	DA	88	G	2.1
22	DA	295	G	2.1
22	DA	338	G	2.1
22	DA	1091	G	2.1
22	DA	1197	G	2.1
22	DA	1643	G	2.1
22	DA	2012	G	2.1
22	DA	2367	G	2.1
26	DE	136	GLN	2.1
36	DO	19	GLN	2.1
5	AE	101	GLY	2.1
7	AG	20	GLU	2.1
14	AN	25	GLU	2.1
14	CN	91	GLU	2.1
25	DD	199	SER	2.1
35	DN	50	PRO	2.1
37	BP	1	SER	2.1
22	DA	16	C	2.1
22	DA	57	C	2.1
22	DA	281	C	2.1
22	DA	2310	C	2.1
22	DA	2712	C	2.1
53	CA	1533	C	2.1
14	CN	34	ASN	2.1
56	CP	39	PHE	2.1
2	CB	13	VAL	2.1
8	AH	89	ASP	2.1
10	AJ	57	VAL	2.1
19	CS	22	VAL	2.1
24	DC	215	VAL	2.1
25	BD	92	VAL	2.1
29	DH	121	VAL	2.1
32	DK	35	VAL	2.1
54	CG	139	ASP	2.1
5	CE	79	THR	2.1
19	CS	12	LEU	2.1
21	CU	42	THR	2.1

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Mol	Chain	Res	Type	RSRZ
22	DA	114	U	2.1
22	DA	1409	U	2.1
25	DD	110	THR	2.1
25	DD	154	LYS	2.1
30	BI	137	LEU	2.1
35	DN	36	THR	2.1
38	DQ	16	ILE	2.1
50	D2	42	LEU	2.1
54	CG	37	THR	2.1
55	CM	79	LEU	2.1
14	CN	64	ARG	2.1
17	AQ	5	ARG	2.1
31	BJ	96	ARG	2.1
34	DM	12	MET	2.1
4	CD	35	GLN	2.1
4	CD	39	GLN	2.1
5	CE	117	ALA	2.1
31	DJ	86	GLN	2.1
39	BR	103	ALA	2.1
1	AA	78	A	2.1
1	AA	1493	A	2.1
9	AI	70	GLY	2.1
22	BA	1808	A	2.1
22	DA	28	A	2.1
22	DA	91	A	2.1
22	DA	241	A	2.1
22	DA	829	A	2.1
22	DA	1981	A	2.1
22	DA	2020	A	2.1
29	BH	118	PRO	2.1
41	DT	71	GLY	2.1
42	DU	54	PRO	2.1
50	D2	27	GLY	2.1
1	AA	79	G	2.1
3	CC	194	VAL	2.1
22	BA	2144	G	2.1
22	DA	185	G	2.1
22	DA	622	G	2.1
22	DA	630	G	2.1
22	DA	1334	G	2.1
22	DA	2107	G	2.1
53	CA	1353	G	2.1

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Mol	Chain	Res	Type	RSRZ
54	CG	26	VAL	2.1
57	DB	18	G	2.1
22	DA	2830	C	2.1
2	AB	169	HIS	2.1
3	AC	174	LEU	2.1
13	AM	79	LEU	2.1
14	CN	15	LEU	2.1
19	CS	11	ASP	2.1
20	CT	32	LYS	2.1
24	DC	25	LYS	2.1
26	DE	58	LYS	2.1
31	DJ	40	HIS	2.1
39	DR	27	ILE	2.1
51	D3	23	HIS	2.1
55	CM	21	ILE	2.1
55	CM	76	ILE	2.1
3	CC	43	THR	2.1
45	DX	27	ARG	2.1
28	DG	62	ALA	2.1
30	BI	62	ALA	2.1
22	DA	746	U	2.1
53	CA	480	U	2.1
53	CA	1086	U	2.1
9	CI	70	GLY	2.1
13	AM	83	GLY	2.1
33	BL	114	GLY	2.1
33	DL	76	GLU	2.1
54	CG	59	GLU	2.1
14	CN	79	SER	2.1
29	BH	93	SER	2.1
39	DR	7	SER	2.1
44	BW	29	SER	2.1
24	DC	249	VAL	2.1
26	DE	120	VAL	2.1
26	DE	121	VAL	2.1
45	DX	50	VAL	2.1
22	DA	265	A	2.1
22	DA	1008	A	2.1
22	DA	2033	A	2.1
29	BH	73	ASN	2.1
29	DH	8	LYS	2.1
41	DT	59	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
51	D3	35	LYS	2.1
2	CB	30	ILE	2.1
2	CB	113	LEU	2.1
13	AM	88	LEU	2.1
24	DC	201	LEU	2.1
25	DD	146	ILE	2.1
29	BH	135	HIS	2.1
28	BG	83	THR	2.1
40	DS	1	MET	2.1
40	DS	82	MET	2.1
54	CG	115	MET	2.1
54	CG	143	MET	2.1
22	DA	76	C	2.1
22	DA	565	C	2.1
22	DA	1843	C	2.1
38	DQ	37	ALA	2.1
40	DS	54	ALA	2.1
53	CA	1449	C	2.1
22	DA	175	G	2.1
22	DA	476	G	2.1
22	DA	777	G	2.1
22	DA	2447	G	2.1
53	CA	102	G	2.1
54	CG	146	ALA	2.1
10	AJ	35	GLN	2.1
37	DP	11	GLN	2.1
42	DU	84	PHE	2.1
3	CC	51	VAL	2.0
22	DA	2028	U	2.0
24	BC	241	LYS	2.0
40	DS	98	LYS	2.0
53	CA	1202	U	2.0
29	DH	82	SER	2.0
4	AD	62	ARG	2.0
8	CH	124	ILE	2.0
9	AI	20	ILE	2.0
10	AJ	90	LEU	2.0
11	CK	106	ILE	2.0
17	AQ	64	ARG	2.0
25	DD	48	ILE	2.0
29	BH	90	LEU	2.0
32	DK	31	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
34	DM	81	ARG	2.0
51	D3	39	ARG	2.0
52	D4	13	ASN	2.0
52	D4	16	ILE	2.0
47	DZ	53	MET	2.0
4	CD	49	ASP	2.0
9	AI	65	THR	2.0
20	CT	36	ALA	2.0
22	BA	1077	A	2.0
22	DA	256	A	2.0
22	DA	279	A	2.0
22	DA	454	A	2.0
22	DA	470	A	2.0
22	DA	1040	A	2.0
22	DA	1640	A	2.0
22	DA	2327	A	2.0
22	DA	2679	A	2.0
22	DA	2851	A	2.0
25	DD	25	THR	2.0
28	DG	48	THR	2.0
29	DH	125	THR	2.0
33	DL	113	ALA	2.0
35	DN	112	TYR	2.0
50	D2	20	ALA	2.0
50	D2	32	ALA	2.0
53	CA	1285	A	2.0
53	CA	1437	A	2.0
14	CN	72	PHE	2.0
29	BH	85	GLY	2.0
29	BH	95	GLY	2.0
32	DK	26	GLY	2.0
39	DR	56	GLY	2.0
42	DU	65	GLN	2.0
55	CM	83	GLY	2.0
58	DF	81	GLY	2.0
26	DE	129	PRO	2.0
17	CQ	38	LYS	2.0
41	DT	18	GLU	2.0
58	DF	164	GLU	2.0
22	DA	269	C	2.0
22	DA	986	C	2.0
41	DT	58	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
53	CA	328	C	2.0
2	CB	128	LEU	2.0
22	DA	317	G	2.0
22	DA	1042	G	2.0
22	DA	1537	G	2.0
26	DE	40	ARG	2.0
26	DE	67	ARG	2.0
28	DG	104	LEU	2.0
34	DM	55	ARG	2.0
53	CA	105	G	2.0
3	AC	63	ILE	2.0
6	CF	6	ILE	2.0
30	BI	85	ILE	2.0
37	DP	84	SER	2.0
22	DA	139	U	2.0
53	CA	1326	U	2.0
14	CN	66	THR	2.0
25	DD	129	THR	2.0
43	DV	94	ALA	2.0
44	DW	9	THR	2.0
58	DF	82	TYR	2.0
40	DS	22	ASP	2.0
29	DH	126	GLY	2.0
29	BH	83	LYS	2.0
40	DS	83	LYS	2.0
42	DU	23	LYS	2.0
42	DU	43	LYS	2.0
42	DU	47	PRO	2.0
45	DX	25	LYS	2.0
55	CM	30	LYS	2.0
14	CN	25	GLU	2.0
21	AU	30	GLU	2.0
22	DA	423	A	2.0
22	DA	616	A	2.0
22	DA	631	A	2.0
22	DA	1032	A	2.0
29	DH	108	VAL	2.0
34	DM	108	VAL	2.0
37	DP	8	GLU	2.0
38	DQ	49	ARG	2.0
41	DT	53	VAL	2.0
49	D1	34	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
53	CA	456	A	2.0
13	AM	97	ARG	2.0
14	CN	78	LEU	2.0
44	DW	58	LEU	2.0
1	AA	1045	C	2.0
1	AA	1397	C	2.0
22	DA	2001	C	2.0

6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95th percentile and maximum values of B factors of atoms in the group. The column labelled 'Q<0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
59	MG	DA	3129	1/1	0.24	0.23	233,233,233,233	0
59	MG	DA	3062	1/1	0.26	0.60	211,211,211,211	0
59	MG	DA	3003	1/1	0.27	0.21	236,236,236,236	0
59	MG	DA	3108	1/1	0.34	0.23	185,185,185,185	0
59	MG	DA	3124	1/1	0.36	0.46	176,176,176,176	0
59	MG	DA	3018	1/1	0.39	0.23	226,226,226,226	0
59	MG	DA	3019	1/1	0.40	0.38	247,247,247,247	0
59	MG	CA	1627	1/1	0.47	0.25	181,181,181,181	0
59	MG	CA	1602	1/1	0.50	0.27	175,175,175,175	0
59	MG	CA	1622	1/1	0.50	0.13	226,226,226,226	0
59	MG	DJ	201	1/1	0.53	0.26	230,230,230,230	0
59	MG	DA	3057	1/1	0.55	0.20	227,227,227,227	0
59	MG	DC	301	1/1	0.59	0.20	145,145,145,145	0
59	MG	DA	3122	1/1	0.62	0.18	153,153,153,153	0
59	MG	CA	1619	1/1	0.63	0.17	214,214,214,214	0
59	MG	DA	3010	1/1	0.63	0.31	218,218,218,218	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
59	MG	CA	1616	1/1	0.65	0.14	254,254,254,254	0
59	MG	DA	3027	1/1	0.65	0.36	253,253,253,253	0
59	MG	DA	3105	1/1	0.65	0.24	262,262,262,262	0
59	MG	DA	3119	1/1	0.67	0.15	93,93,93,93	0
59	MG	BB	201	1/1	0.68	0.12	222,222,222,222	0
59	MG	DA	3007	1/1	0.68	0.12	254,254,254,254	0
59	MG	DA	3110	1/1	0.68	0.13	153,153,153,153	0
59	MG	DA	3021	1/1	0.69	0.24	199,199,199,199	0
59	MG	DA	3109	1/1	0.69	0.11	174,174,174,174	0
59	MG	DA	3107	1/1	0.69	0.18	161,161,161,161	0
59	MG	DA	3073	1/1	0.70	0.56	274,274,274,274	0
59	MG	CA	1628	1/1	0.70	0.19	260,260,260,260	0
59	MG	DA	3015	1/1	0.70	0.16	183,183,183,183	0
59	MG	DA	3132	1/1	0.71	0.21	174,174,174,174	0
59	MG	DA	3048	1/1	0.72	0.09	218,218,218,218	0
59	MG	DA	3013	1/1	0.72	0.17	126,126,126,126	0
59	MG	DA	3114	1/1	0.73	0.28	167,167,167,167	0
59	MG	DC	302	1/1	0.73	0.13	129,129,129,129	0
59	MG	DA	3061	1/1	0.73	0.35	229,229,229,229	0
59	MG	DA	3005	1/1	0.75	0.23	309,309,309,309	0
59	MG	DA	3025	1/1	0.76	0.41	278,278,278,278	0
59	MG	CA	1607	1/1	0.77	0.11	121,121,121,121	0
59	MG	CA	1601	1/1	0.77	0.15	156,156,156,156	0
59	MG	DA	3049	1/1	0.78	0.15	172,172,172,172	0
59	MG	DE	301	1/1	0.78	0.26	131,131,131,131	0
59	MG	DA	3117	1/1	0.78	0.12	71,71,71,71	0
59	MG	CA	1629	1/1	0.79	0.13	197,197,197,197	0
59	MG	DA	3052	1/1	0.79	0.14	89,89,89,89	0
59	MG	DA	3006	1/1	0.79	0.15	211,211,211,211	0
59	MG	DA	3001	1/1	0.79	0.16	151,151,151,151	0
59	MG	DA	3042	1/1	0.79	0.12	161,161,161,161	0
59	MG	DA	3063	1/1	0.79	0.16	278,278,278,278	0
59	MG	AA	1618	1/1	0.79	0.24	197,197,197,197	0
59	MG	DA	3087	1/1	0.79	0.16	179,179,179,179	0
59	MG	CA	1639	1/1	0.80	0.10	165,165,165,165	0
59	MG	DA	3091	1/1	0.80	0.18	116,116,116,116	0
59	MG	CA	1623	1/1	0.81	0.15	124,124,124,124	0
59	MG	CA	1632	1/1	0.81	0.12	156,156,156,156	0
59	MG	DA	3017	1/1	0.81	0.16	204,204,204,204	0
59	MG	DA	3131	1/1	0.81	0.20	212,212,212,212	0
59	MG	DA	3044	1/1	0.81	0.10	156,156,156,156	0
59	MG	AA	1629	1/1	0.81	0.13	180,180,180,180	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	AA	1610	1/1	0.81	0.12	190,190,190,190	0
59	MG	DA	3090	1/1	0.81	0.20	165,165,165,165	0
59	MG	DA	3002	1/1	0.81	0.17	180,180,180,180	0
59	MG	CA	1631	1/1	0.82	0.18	93,93,93,93	0
59	MG	BA	3129	1/1	0.82	0.46	214,214,214,214	0
59	MG	BA	3024	1/1	0.82	0.29	166,166,166,166	0
59	MG	BA	3047	1/1	0.82	0.15	111,111,111,111	0
59	MG	BA	3068	1/1	0.83	0.10	117,117,117,117	0
59	MG	DA	3092	1/1	0.83	0.15	229,229,229,229	0
59	MG	AA	1617	1/1	0.83	0.11	115,115,115,115	0
59	MG	DA	3075	1/1	0.83	0.22	174,174,174,174	0
59	MG	AA	1630	1/1	0.83	0.14	189,189,189,189	0
59	MG	CA	1634	1/1	0.83	0.11	131,131,131,131	0
59	MG	DA	3126	1/1	0.83	0.23	200,200,200,200	0
59	MG	DA	3082	1/1	0.84	0.10	197,197,197,197	0
59	MG	CA	1614	1/1	0.84	0.16	210,210,210,210	0
59	MG	DA	3056	1/1	0.84	0.30	197,197,197,197	0
59	MG	CA	1625	1/1	0.84	0.12	100,100,100,100	0
59	MG	DA	3024	1/1	0.84	0.14	89,89,89,89	0
59	MG	DA	3097	1/1	0.84	0.13	144,144,144,144	0
59	MG	DA	3128	1/1	0.85	0.44	214,214,214,214	0
59	MG	DA	3081	1/1	0.85	0.12	142,142,142,142	0
59	MG	CA	1618	1/1	0.85	0.08	113,113,113,113	0
59	MG	DA	3068	1/1	0.85	0.20	209,209,209,209	0
59	MG	CA	1636	1/1	0.86	0.17	181,181,181,181	0
59	MG	CA	1620	1/1	0.86	0.11	168,168,168,168	0
59	MG	DA	3071	1/1	0.86	0.12	133,133,133,133	0
59	MG	DA	3112	1/1	0.86	0.13	131,131,131,131	0
59	MG	DA	3046	1/1	0.86	0.14	151,151,151,151	0
59	MG	CA	1617	1/1	0.86	0.09	199,199,199,199	0
59	MG	DA	3077	1/1	0.86	0.17	222,222,222,222	0
59	MG	DA	3078	1/1	0.86	0.20	180,180,180,180	0
59	MG	DA	3037	1/1	0.86	0.11	197,197,197,197	0
59	MG	CA	1624	1/1	0.87	0.22	165,165,165,165	0
59	MG	CA	1610	1/1	0.87	0.10	152,152,152,152	0
59	MG	DA	3083	1/1	0.87	0.15	204,204,204,204	0
59	MG	DA	3099	1/1	0.87	0.21	68,68,68,68	0
59	MG	AA	1619	1/1	0.87	0.11	156,156,156,156	0
59	MG	AA	1636	1/1	0.87	0.14	124,124,124,124	0
59	MG	CA	1615	1/1	0.88	0.08	172,172,172,172	0
59	MG	BA	3110	1/1	0.88	0.17	92,92,92,92	0
59	MG	DA	3032	1/1	0.88	0.12	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	DA	3074	1/1	0.88	0.24	190,190,190,190	0
59	MG	AA	1614	1/1	0.88	0.32	194,194,194,194	0
59	MG	BA	3131	1/1	0.88	0.16	154,154,154,154	0
59	MG	DA	3094	1/1	0.89	0.11	107,107,107,107	0
59	MG	DA	3096	1/1	0.89	0.14	102,102,102,102	0
59	MG	BA	3117	1/1	0.89	0.15	157,157,157,157	0
59	MG	DA	3038	1/1	0.89	0.09	102,102,102,102	0
59	MG	BA	3055	1/1	0.89	0.23	205,205,205,205	0
59	MG	AA	1627	1/1	0.89	0.11	132,132,132,132	0
59	MG	DA	3070	1/1	0.89	0.09	56,56,56,56	0
59	MG	AA	1612	1/1	0.89	0.10	105,105,105,105	0
59	MG	BA	3011	1/1	0.90	0.22	102,102,102,102	0
59	MG	AA	1631	1/1	0.90	0.08	91,91,91,91	0
59	MG	CA	1637	1/1	0.90	0.15	74,74,74,74	0
59	MG	DA	3034	1/1	0.90	0.18	125,125,125,125	0
59	MG	DA	3086	1/1	0.90	0.07	139,139,139,139	0
59	MG	DA	3035	1/1	0.90	0.13	194,194,194,194	0
59	MG	DA	3098	1/1	0.90	0.11	172,172,172,172	0
59	MG	DA	3033	1/1	0.91	0.12	95,95,95,95	0
59	MG	DA	3085	1/1	0.91	0.08	87,87,87,87	0
59	MG	BA	3111	1/1	0.91	0.17	77,77,77,77	0
59	MG	DA	3011	1/1	0.91	0.12	127,127,127,127	0
59	MG	DB	201	1/1	0.91	0.09	104,104,104,104	0
59	MG	CA	1603	1/1	0.91	0.24	162,162,162,162	0
59	MG	DA	3080	1/1	0.91	0.18	108,108,108,108	0
59	MG	DA	3072	1/1	0.91	0.08	187,187,187,187	0
59	MG	BA	3069	1/1	0.91	0.17	151,151,151,151	0
59	MG	DA	3084	1/1	0.92	0.16	144,144,144,144	0
59	MG	AA	1628	1/1	0.92	0.08	69,69,69,69	0
59	MG	DA	3008	1/1	0.92	0.12	148,148,148,148	0
59	MG	AA	1639	1/1	0.92	0.09	108,108,108,108	0
59	MG	DA	3059	1/1	0.92	0.44	200,200,200,200	0
59	MG	AN	201	1/1	0.92	0.09	159,159,159,159	0
59	MG	BA	3003	1/1	0.92	0.10	69,69,69,69	0
59	MG	AA	1608	1/1	0.92	0.18	68,68,68,68	0
59	MG	DA	3030	1/1	0.92	0.08	68,68,68,68	0
59	MG	DA	3016	1/1	0.92	0.11	87,87,87,87	0
59	MG	BA	3090	1/1	0.92	0.16	128,128,128,128	0
59	MG	BA	3014	1/1	0.93	0.09	68,68,68,68	0
59	MG	DA	3040	1/1	0.93	0.05	70,70,70,70	0
59	MG	DA	3125	1/1	0.93	0.12	82,82,82,82	0
59	MG	BA	3056	1/1	0.93	0.24	169,169,169,169	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	DA	3127	1/1	0.93	0.13	142,142,142,142	0
59	MG	BA	3060	1/1	0.93	0.22	210,210,210,210	0
59	MG	DA	3029	1/1	0.93	0.12	112,112,112,112	0
59	MG	AA	1626	1/1	0.93	0.15	117,117,117,117	0
59	MG	DA	3004	1/1	0.93	0.12	114,114,114,114	0
59	MG	CA	1612	1/1	0.93	0.17	136,136,136,136	0
59	MG	BA	3046	1/1	0.93	0.11	149,149,149,149	0
59	MG	BA	3086	1/1	0.93	0.10	131,131,131,131	0
59	MG	DA	3036	1/1	0.93	0.12	82,82,82,82	0
59	MG	AA	1638	1/1	0.93	0.10	116,116,116,116	0
59	MG	DA	3111	1/1	0.94	0.10	109,109,109,109	0
59	MG	BA	3133	1/1	0.94	0.11	139,139,139,139	0
59	MG	DA	3047	1/1	0.94	0.09	95,95,95,95	0
59	MG	DA	3089	1/1	0.94	0.05	99,99,99,99	0
59	MG	DA	3118	1/1	0.94	0.08	76,76,76,76	0
59	MG	BA	3001	1/1	0.94	0.10	116,116,116,116	0
59	MG	AA	1635	1/1	0.94	0.08	194,194,194,194	0
59	MG	DA	3050	1/1	0.94	0.09	106,106,106,106	0
59	MG	DA	3026	1/1	0.94	0.09	109,109,109,109	0
59	MG	BA	3124	1/1	0.94	0.07	25,25,25,25	0
59	MG	DA	3028	1/1	0.94	0.22	143,143,143,143	0
59	MG	DA	3079	1/1	0.94	0.10	142,142,142,142	0
59	MG	DA	3058	1/1	0.94	0.13	204,204,204,204	0
59	MG	DA	3130	1/1	0.94	0.12	85,85,85,85	0
59	MG	DA	3100	1/1	0.94	0.08	78,78,78,78	0
59	MG	DA	3103	1/1	0.94	0.14	44,44,44,44	0
59	MG	CA	1641	1/1	0.94	0.15	79,79,79,79	0
59	MG	DA	3041	1/1	0.94	0.10	82,82,82,82	0
59	MG	BA	3097	1/1	0.94	0.11	45,45,45,45	0
59	MG	BA	3085	1/1	0.94	0.07	100,100,100,100	0
59	MG	DA	3045	1/1	0.94	0.10	78,78,78,78	0
59	MG	CA	1633	1/1	0.95	0.10	63,63,63,63	0
59	MG	BA	3072	1/1	0.95	0.12	139,139,139,139	0
59	MG	BA	3109	1/1	0.95	0.18	124,124,124,124	0
59	MG	BA	3074	1/1	0.95	0.10	93,93,93,93	0
59	MG	CA	1638	1/1	0.95	0.07	130,130,130,130	0
59	MG	BA	3076	1/1	0.95	0.11	114,114,114,114	0
59	MG	CA	1640	1/1	0.95	0.12	157,157,157,157	0
59	MG	DA	3093	1/1	0.95	0.14	114,114,114,114	0
59	MG	AA	1607	1/1	0.95	0.09	103,103,103,103	0
59	MG	DA	3113	1/1	0.95	0.11	148,148,148,148	0
59	MG	AA	1602	1/1	0.95	0.08	152,152,152,152	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	CA	1630	1/1	0.95	0.08	131,131,131,131	0
59	MG	BA	3058	1/1	0.95	0.15	107,107,107,107	0
59	MG	BA	3096	1/1	0.95	0.17	102,102,102,102	0
59	MG	DA	3121	1/1	0.95	0.07	84,84,84,84	0
59	MG	DA	3014	1/1	0.96	0.24	172,172,172,172	0
59	MG	CA	1613	1/1	0.96	0.07	105,105,105,105	0
59	MG	DA	3076	1/1	0.96	0.06	93,93,93,93	0
59	MG	AA	1615	1/1	0.96	0.06	120,120,120,120	0
59	MG	BA	3026	1/1	0.96	0.10	133,133,133,133	0
59	MG	BA	3033	1/1	0.96	0.18	162,162,162,162	0
59	MG	BA	3002	1/1	0.96	0.09	85,85,85,85	0
59	MG	BA	3070	1/1	0.96	0.07	53,53,53,53	0
59	MG	DA	3101	1/1	0.96	0.06	67,67,67,67	0
59	MG	BA	3100	1/1	0.96	0.23	89,89,89,89	0
59	MG	DA	3104	1/1	0.96	0.07	47,47,47,47	0
59	MG	BA	3105	1/1	0.96	0.10	42,42,42,42	0
59	MG	DA	3106	1/1	0.96	0.14	92,92,92,92	0
59	MG	CA	1635	1/1	0.96	0.09	95,95,95,95	0
59	MG	DA	3067	1/1	0.96	0.08	83,83,83,83	0
59	MG	AA	1609	1/1	0.96	0.06	46,46,46,46	0
59	MG	AA	1640	1/1	0.96	0.09	154,154,154,154	0
59	MG	AA	1603	1/1	0.96	0.07	111,111,111,111	0
59	MG	BA	3081	1/1	0.96	0.14	86,86,86,86	0
59	MG	DA	3031	1/1	0.96	0.08	105,105,105,105	0
59	MG	BA	3035	1/1	0.97	0.28	171,171,171,171	0
59	MG	DA	3060	1/1	0.97	0.12	105,105,105,105	0
59	MG	DA	3012	1/1	0.97	0.06	64,64,64,64	0
59	MG	BA	3134	1/1	0.97	0.17	219,219,219,219	0
59	MG	DA	3115	1/1	0.97	0.12	65,65,65,65	0
59	MG	BA	3059	1/1	0.97	0.17	190,190,190,190	0
59	MG	DA	3065	1/1	0.97	0.09	49,49,49,49	0
59	MG	BB	202	1/1	0.97	0.06	50,50,50,50	0
59	MG	BL	201	1/1	0.97	0.07	53,53,53,53	0
59	MG	AA	1622	1/1	0.97	0.05	76,76,76,76	0
59	MG	BA	3082	1/1	0.97	0.11	114,114,114,114	0
59	MG	AA	1604	1/1	0.97	0.08	124,124,124,124	0
59	MG	DA	3043	1/1	0.97	0.12	100,100,100,100	0
59	MG	CA	1604	1/1	0.97	0.05	74,74,74,74	0
59	MG	DA	3022	1/1	0.97	0.04	69,69,69,69	0
59	MG	BA	3054	1/1	0.97	0.13	189,189,189,189	0
59	MG	CA	1608	1/1	0.97	0.12	41,41,41,41	0
59	MG	CA	1609	1/1	0.97	0.05	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
59	MG	BA	3088	1/1	0.97	0.07	50,50,50,50	0
59	MG	CA	1611	1/1	0.97	0.09	112,112,112,112	0
59	MG	AA	1606	1/1	0.97	0.07	62,62,62,62	0
59	MG	BA	3091	1/1	0.97	0.06	32,32,32,32	0
59	MG	DA	3009	1/1	0.97	0.06	69,69,69,69	0
59	MG	AA	1637	1/1	0.97	0.08	27,27,27,27	0
60	CLY	BA	3135	27/27	0.97	0.10	11,17,22,22	0
61	ZN	D4	101	1/1	0.97	0.07	161,161,161,161	0
59	MG	BA	3044	1/1	0.98	0.07	12,12,12,12	0
59	MG	BA	3007	1/1	0.98	0.07	80,80,80,80	0
59	MG	AA	1616	1/1	0.98	0.06	98,98,98,98	0
59	MG	AA	1620	1/1	0.98	0.05	117,117,117,117	0
59	MG	BA	3077	1/1	0.98	0.04	30,30,30,30	0
59	MG	CA	1621	1/1	0.98	0.19	46,46,46,46	0
59	MG	AA	1605	1/1	0.98	0.08	39,39,39,39	0
59	MG	DA	3088	1/1	0.98	0.09	87,87,87,87	0
59	MG	AA	1623	1/1	0.98	0.04	102,102,102,102	0
59	MG	DA	3064	1/1	0.98	0.07	70,70,70,70	0
59	MG	DA	3120	1/1	0.98	0.14	109,109,109,109	0
59	MG	DA	3020	1/1	0.98	0.12	49,49,49,49	0
59	MG	DA	3066	1/1	0.98	0.05	61,61,61,61	0
59	MG	CA	1606	1/1	0.98	0.05	64,64,64,64	0
59	MG	BA	3112	1/1	0.98	0.07	47,47,47,47	0
59	MG	DA	3095	1/1	0.98	0.07	95,95,95,95	0
59	MG	DA	3069	1/1	0.98	0.09	69,69,69,69	0
59	MG	BA	3027	1/1	0.98	0.10	46,46,46,46	0
59	MG	BA	3119	1/1	0.98	0.09	51,51,51,51	0
59	MG	BA	3028	1/1	0.98	0.10	77,77,77,77	0
59	MG	BA	3030	1/1	0.98	0.05	21,21,21,21	0
59	MG	BA	3130	1/1	0.98	0.17	97,97,97,97	0
59	MG	DA	3102	1/1	0.98	0.11	86,86,86,86	0
59	MG	BA	3089	1/1	0.98	0.06	80,80,80,80	0
59	MG	AA	1613	1/1	0.98	0.05	56,56,56,56	0
59	MG	BA	3004	1/1	0.98	0.09	138,138,138,138	0
59	MG	DA	3053	1/1	0.98	0.04	67,67,67,67	0
59	MG	DA	3054	1/1	0.98	0.06	96,96,96,96	0
61	ZN	B4	101	1/1	0.98	0.08	80,80,80,80	0
59	MG	DA	3055	1/1	0.98	0.09	120,120,120,120	0
59	MG	BA	3061	1/1	0.99	0.05	20,20,20,20	0
59	MG	BA	3062	1/1	0.99	0.05	11,11,11,11	0
59	MG	BA	3065	1/1	0.99	0.03	17,17,17,17	0
59	MG	BB	203	1/1	0.99	0.03	17,17,17,17	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	BB	204	1/1	0.99	0.06	41,41,41,41	0
59	MG	BA	3066	1/1	0.99	0.04	10,10,10,10	0
59	MG	BA	3022	1/1	0.99	0.04	8,8,8,8	0
59	MG	AA	1611	1/1	0.99	0.04	62,62,62,62	0
59	MG	BA	3025	1/1	0.99	0.09	26,26,26,26	0
59	MG	AA	1601	1/1	0.99	0.08	70,70,70,70	0
59	MG	DA	3023	1/1	0.99	0.03	87,87,87,87	0
59	MG	CA	1605	1/1	0.99	0.09	37,37,37,37	0
59	MG	BA	3073	1/1	0.99	0.07	8,8,8,8	0
59	MG	AA	1624	1/1	0.99	0.06	82,82,82,82	0
59	MG	BA	3075	1/1	0.99	0.04	29,29,29,29	0
59	MG	AA	1632	1/1	0.99	0.09	76,76,76,76	0
59	MG	BA	3029	1/1	0.99	0.10	3,3,3,3	0
59	MG	BA	3078	1/1	0.99	0.05	20,20,20,20	0
59	MG	BA	3080	1/1	0.99	0.04	34,34,34,34	0
59	MG	AA	1633	1/1	0.99	0.05	51,51,51,51	0
59	MG	BA	3032	1/1	0.99	0.10	3,3,3,3	0
59	MG	BA	3083	1/1	0.99	0.03	28,28,28,28	0
59	MG	BA	3084	1/1	0.99	0.02	13,13,13,13	0
59	MG	BA	3005	1/1	0.99	0.05	87,87,87,87	0
59	MG	AA	1634	1/1	0.99	0.04	72,72,72,72	0
59	MG	BA	3087	1/1	0.99	0.03	35,35,35,35	0
59	MG	DA	3039	1/1	0.99	0.06	65,65,65,65	0
59	MG	BA	3037	1/1	0.99	0.03	5,5,5,5	0
59	MG	BA	3038	1/1	0.99	0.05	31,31,31,31	0
59	MG	BA	3041	1/1	0.99	0.03	13,13,13,13	0
59	MG	BA	3042	1/1	0.99	0.04	41,41,41,41	0
59	MG	BA	3092	1/1	0.99	0.04	56,56,56,56	0
59	MG	BA	3094	1/1	0.99	0.04	9,9,9,9	0
59	MG	CA	1626	1/1	0.99	0.11	23,23,23,23	0
59	MG	BA	3095	1/1	0.99	0.05	77,77,77,77	0
59	MG	BA	3008	1/1	0.99	0.05	7,7,7,7	0
59	MG	BA	3045	1/1	0.99	0.06	17,17,17,17	0
59	MG	BA	3010	1/1	0.99	0.04	29,29,29,29	0
59	MG	DA	3051	1/1	0.99	0.07	57,57,57,57	0
59	MG	BA	3102	1/1	0.99	0.12	3,3,3,3	0
59	MG	DA	3116	1/1	0.99	0.11	77,77,77,77	0
59	MG	BA	3103	1/1	0.99	0.06	4,4,4,4	0
59	MG	AA	1641	1/1	0.99	0.09	22,22,22,22	0
59	MG	BA	3107	1/1	0.99	0.08	5,5,5,5	0
59	MG	BA	3108	1/1	0.99	0.04	48,48,48,48	0
59	MG	BA	3049	1/1	0.99	0.06	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	BA	3050	1/1	0.99	0.03	10,10,10,10	0
59	MG	DA	3123	1/1	0.99	0.07	61,61,61,61	0
59	MG	BA	3051	1/1	0.99	0.04	58,58,58,58	0
59	MG	BA	3053	1/1	0.99	0.04	31,31,31,31	0
59	MG	BA	3113	1/1	0.99	0.05	114,114,114,114	0
59	MG	BA	3116	1/1	0.99	0.06	76,76,76,76	0
59	MG	CA	1642	1/1	0.99	0.05	82,82,82,82	0
59	MG	AA	1642	1/1	0.99	0.04	37,37,37,37	0
59	MG	BA	3118	1/1	0.99	0.07	11,11,11,11	0
59	MG	BA	3015	1/1	0.99	0.07	55,55,55,55	0
59	MG	BA	3121	1/1	0.99	0.06	15,15,15,15	0
59	MG	BA	3122	1/1	0.99	0.14	137,137,137,137	0
59	MG	BA	3123	1/1	0.99	0.07	11,11,11,11	0
59	MG	BA	3016	1/1	0.99	0.03	2,2,2,2	0
59	MG	BA	3126	1/1	0.99	0.05	9,9,9,9	0
59	MG	BA	3057	1/1	0.99	0.04	48,48,48,48	0
59	MG	BA	3019	1/1	0.99	0.10	15,15,15,15	0
59	MG	BA	3020	1/1	0.99	0.05	22,22,22,22	0
59	MG	BA	3021	1/1	0.99	0.06	7,7,7,7	0
59	MG	BA	3013	1/1	1.00	0.03	1,1,1,1	0
59	MG	BA	3063	1/1	1.00	0.02	1,1,1,1	0
59	MG	BA	3114	1/1	1.00	0.05	4,4,4,4	0
59	MG	BA	3115	1/1	1.00	0.02	11,11,11,11	0
59	MG	BA	3064	1/1	1.00	0.02	18,18,18,18	0
59	MG	BA	3031	1/1	1.00	0.02	12,12,12,12	0
59	MG	AA	1621	1/1	1.00	0.10	25,25,25,25	0
59	MG	BA	3067	1/1	1.00	0.04	18,18,18,18	0
59	MG	BA	3120	1/1	1.00	0.06	4,4,4,4	0
59	MG	BA	3048	1/1	1.00	0.02	6,6,6,6	0
59	MG	BA	3023	1/1	1.00	0.03	5,5,5,5	0
59	MG	BA	3034	1/1	1.00	0.02	5,5,5,5	0
59	MG	BA	3093	1/1	1.00	0.03	36,36,36,36	0
59	MG	BA	3125	1/1	1.00	0.06	27,27,27,27	0
59	MG	BA	3071	1/1	1.00	0.02	7,7,7,7	0
59	MG	BA	3127	1/1	1.00	0.02	3,3,3,3	0
59	MG	BA	3128	1/1	1.00	0.04	19,19,19,19	0
59	MG	BA	3009	1/1	1.00	0.04	6,6,6,6	0
59	MG	BA	3052	1/1	1.00	0.02	5,5,5,5	0
59	MG	BA	3036	1/1	1.00	0.02	4,4,4,4	0
59	MG	BA	3132	1/1	1.00	0.04	1,1,1,1	0
59	MG	BA	3098	1/1	1.00	0.02	15,15,15,15	0
59	MG	BA	3099	1/1	1.00	0.05	1,1,1,1	0

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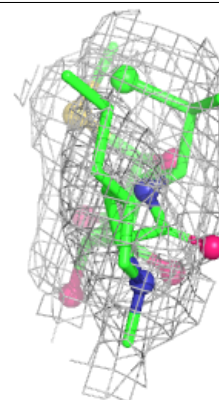
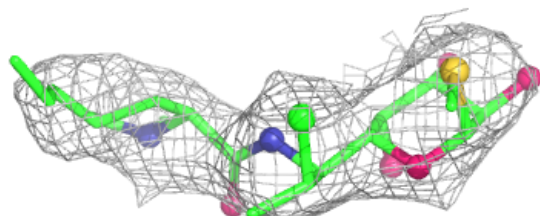
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
59	MG	BA	3006	1/1	1.00	0.02	39,39,39,39	0
59	MG	BA	3101	1/1	1.00	0.03	11,11,11,11	0
59	MG	BA	3017	1/1	1.00	0.02	24,24,24,24	0
59	MG	BA	3039	1/1	1.00	0.13	6,6,6,6	0
59	MG	BA	3104	1/1	1.00	0.05	3,3,3,3	0
59	MG	BA	3040	1/1	1.00	0.07	11,11,11,11	0
59	MG	BA	3106	1/1	1.00	0.06	13,13,13,13	0
59	MG	BA	3079	1/1	1.00	0.02	13,13,13,13	0
59	MG	BA	3018	1/1	1.00	0.17	6,6,6,6	0
59	MG	AA	1625	1/1	1.00	0.12	30,30,30,30	0
59	MG	BA	3043	1/1	1.00	0.08	11,11,11,11	0
59	MG	BA	3012	1/1	1.00	0.02	1,1,1,1	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

Electron density around CLY BA 3135:

2mF_o-DF_c (at 0.7 rmsd) in gray
mF_o-DF_c (at 3 rmsd) in purple (negative)
and green (positive)



6.5 Other polymers [i](#)

There are no such residues in this entry.